

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

Energy Reserves Group, Inc.

## 3. ADDRESS OF OPERATOR

Box 3280 Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
At surfaceAt proposed prod. zone 581' FNL 2042' FEL *NW NE*

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

Apporx. 18 miles south east of Jensen, Utah

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drig. unit line, if any)

581'

## 16. NO. OF ACRES IN LEASE

1280

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

1300'

## 19. PROPOSED DEPTH

5800' *Green River*

## 20. ROTARY OR CABLE TOOLS

Rotary

## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5078' GR

## 22. APPROX. DATE WORK WILL START\*

June 1981

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2"	8 5/8"	24#	500' ±	Cement to surface
7 7/8"	5 1/2"	14#	5800'	Sufficient to protect Green River Formation

APPROVED BY THE DIVISION

OF OIL, GAS, AND MINING

DATE: *4-22-81*BY: *M. J. Winder**as an oil well only!*DIVISION OF  
OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

## 24.

SIGNED

*William J. Fiant*TITLE *Field Services Adm.*DATE *3-10-81*

(This space for Federal or State office use)

PERMIT NO.

*30739*

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

cc. State of Utah

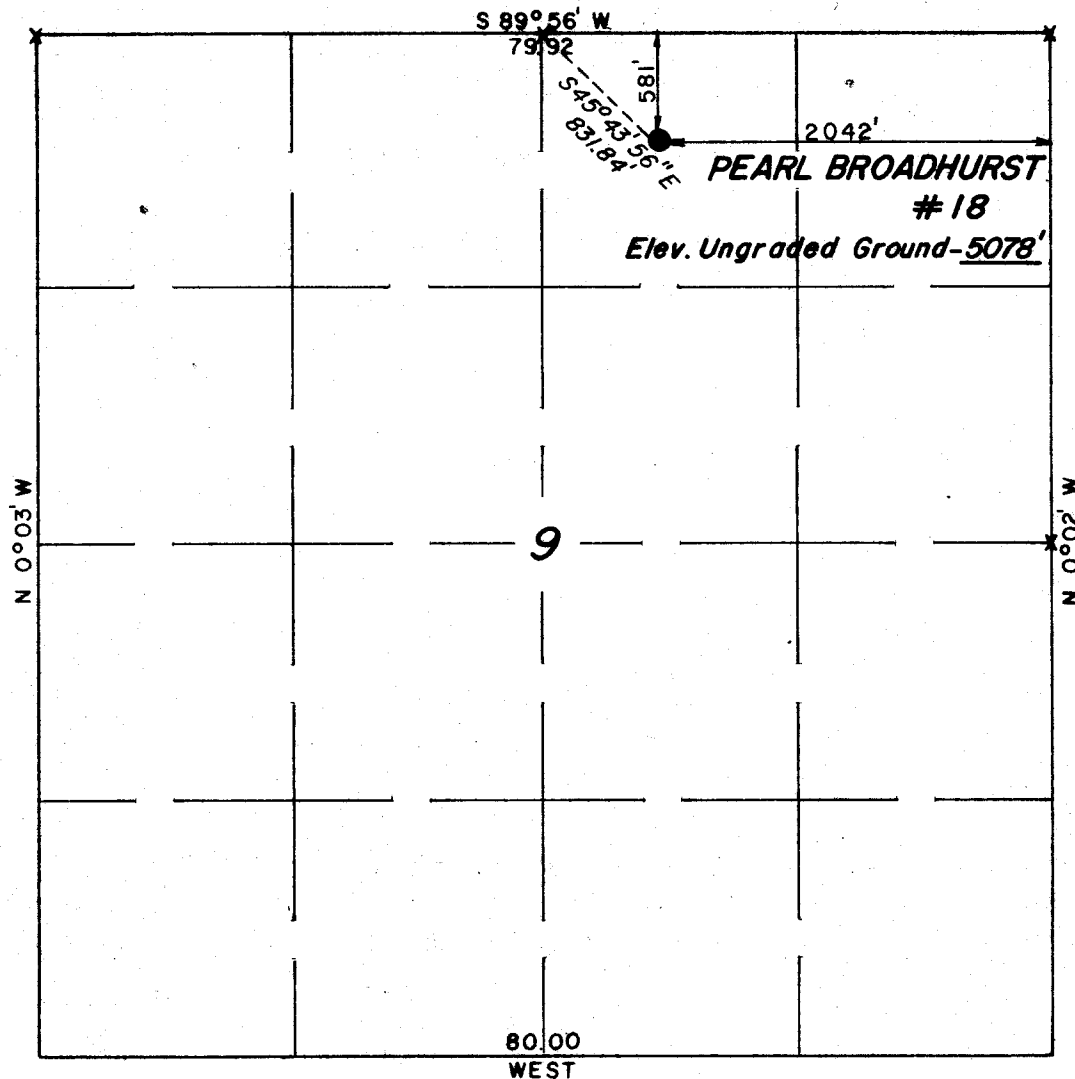
E. Jones - B. Fiant - R. Gillespie

R. Radke - D. Karren

T 7 S, R 23 E, S.L.B. & M.

PROJECT  
**ENERGY RESERVES GROUP**

Well location, **PEARL BROADHURST #18**, located as shown in the NW1/4 NE1/4 Section 9, T7S, R23E, S.L.B. & M. Uintah County, Utah



X = Section Corners Located



CERTIFICATE

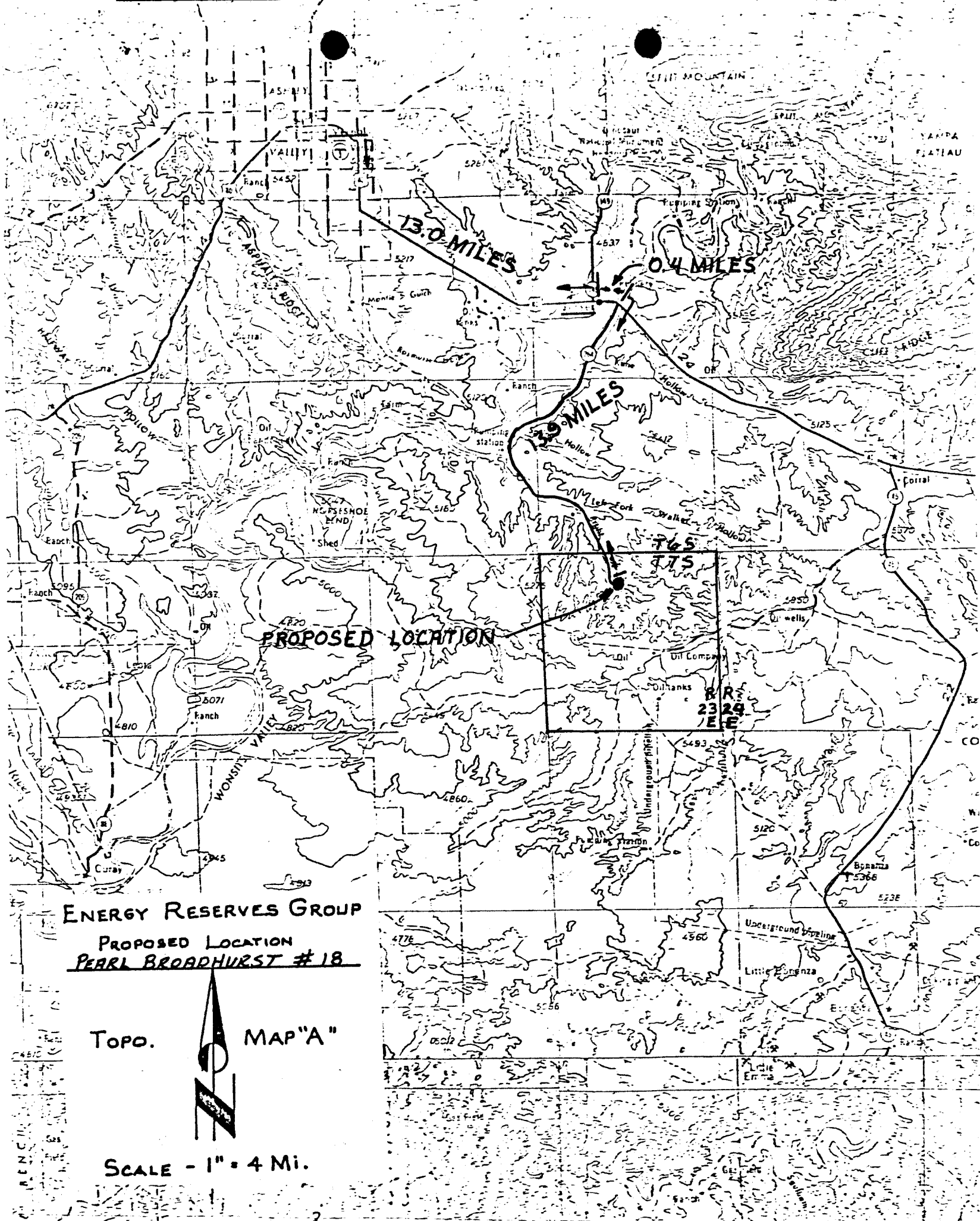
THIS SURVEY CERTIFICATE THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Lene Stewart*

REGISTERED LAND SURVEYOR  
REGISTRATION NO 3154  
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING  
P O BOX Q - 85 SOUTH - 200 EAST  
VERNAL, UTAH - 84078

SCALE 1" = 1000'	DATE 3/3/81
PARTY GS DK DM WB	REFERENCES GLO Plat
WEATHER Cloudy / Cold	FILE ENERGY RESERVES GROUP



TEN POINT PROGRAM

1) SURFACE FORMATION: Uintah

2 & 3) ESTIMATED TOPS:

Green River	3050'	
Green River "G"	4570'	
Green River "H"	4875'	
Green River "I"	5120'	Oil & Gas
Green River "J"	5400'	
Green River "K"	5550'	
T.D.	5800'	

4) CASING PROGRAM:

8 5/8", K-55, 24#, New Casing, ST&C  
5 1/2", K-55, 14#, New Casing, ST&C

5) PRESSURE CONTROL EQUIPMENT: (See attached schematic diagram) BOP's and choke manifold will be installed and pressure tested before drilling out under surface casing and then will be checked daily as to mechanical operating condition. Ram type preventors and related pressure control equipment will be pressure tested to rated working pressure of the stack assembly or to 70% of the minimum internal yield pressure of the casing. Annular type preventors will be tested to 50% of their rated working pressure. BOP's will be pressure tested at least once every 30 days.

6) MUD PROGRAM:

Fresh Water base gel mud will be used during the entire drilling operation.  
Mud weight 9.5 ppg. VIS 50-55, Water loss, PH 9.5

Sufficient mud materials to maintain mud properties, control lost circulation and to contain blowout will be available at wellsite.

7) AUXILLIARY EQUIPMENT:

- a. Kelly cocks
- b. Bit floats will be available
- c. Mud monitoring will be visual unless otherwise specified
- d. A full opening valve with drill pipe thread will be available on the rig floor

8) LOGGING: DIL, SGR, CN-D

CORING: None

TESTING: None

STIMULATION: 60,000 gallons of gelled water with 100,000# sand. All applicable state & federal regulations concerning equipment placement will be adhered to.

9) ABNORMAL PRESSURE: None

ESTIMATED BOTTOMHOLE PRESSURE: 2200 PSI

10) ANTICIPATED STARTING DATE: June - July 1981

DURATION OF OPERATION: 30 days

LEASE: Broadhurst No. 18

Lease No. U-02651-A

LOCATION: NW $\frac{1}{4}$  NE $\frac{1}{4}$ , Section 9-T7S-R23E

DATE: 3-10-81

SURFACE USE AND OPERATIONS PLAN

1. Existing roads

- A. Proposed well site & access road staked - see attached topo map
- B. Route and distance from nearest town: Proceed south from Jensen, Utah along Utah Hwy. 264, 8.6 miles to the junction of this highway and an existing improved road to the south east. Proceed along this road for approx. six miles to the junction of the proposed access road.
- C. Access roads to location: Color coded.
- D. Exploratory well: Not applicable.
- E. Development well: For all existing roads within a one mile radius See Map.
- F. Plans for improvement and/or maintenance: No improvements are necessary. Maintenance will be performed as necessary by Energy Reserves Group, Inc.

2. Planned access roads. See Map.

- 1. Width: 30' with ditches - 500' in length
- 2. Maximum grade: 4%
- 3. Turnouts: None
- 4. Drainage design: Ditched & Crowned
- 5. Location and size of culverts: One 18" culvert where leaving main access road  
Major cuts and fills: None
- 6. Surface Materials: Gravel or crushed rock - purchased on fee lands
- 7. Gates: None  
Cattleguards: None  
Fence cuts: None
- 8. Center-line road flagging: The route of the new access road is flagged as shown on Map.

3. Location of existing wells

- 1. Water wells: None
- 2. Abandoned wells: Well No. 3 - SW  $\frac{1}{4}$  NE  $\frac{1}{4}$ , Section 9
- 3. Temporarily Abandoned Wells: Well No. 5 - SW  $\frac{1}{4}$  SW  $\frac{1}{4}$ , Section 10
- 4. Disposal wells: None
- 5. Drilling wells: 11, 14, 15, 16, 17
- 6. Producing wells: 1, 2, 4, 6, 7, 8, 9, 10, 12, 13
- 7. Shut-in wells: None
- 8. Injection wells: None
- 9. Monitoring or observation wells: None

4. Location of existing and/or proposed facilities owned and/or controlled by Energy Reserves Group, Inc.

A. Existing facilities:

1. Tank batteries: Located @ wells #1, #2, #4, #6 between wells #8 & #9 and north of well #3
2. Production facilities: All wells are equipped with beam type pumping units
3. Oil gathering lines: From wells #7, #10, #15 to battery @ well #6- from wells 8,9,11,16 & 17 to battery between wells #8 & #9 from wells 12,13,14,18,19 & 20
4. Gas gathering lines: Each well has a gas gathering line to its respective tank battery to battery
5. Injection lines: From Red Eash Field to Well No. 3
6. Disposal lines: None

B. New production facilities:

1. Proposed tank battery: None - a pipeline is proposed from this well to the battery site north of well No. 3
2. Dimensions of facilities: NA
3. Construction methods and materials: Area to be used will be leveled with dozer, materials used for foundation will consist of crushed rock and native materials.
4. Protective measures and devices: Pits will be fenced and flagged to protect livestock, wildlife and waterfowl.

C. Plans for rehabilitation of disturbed area: All disturbed areas not needed for operation will be contoured to match existing terrain and reseeded with the seed mixture recommended by the surface owner.

5. Location and type of water supply

- A. Location: Pipeline near well No. 3  
Supply: Pipeline from Red Wash Field
- B. Method of transportation: Water will be hauled by tank trucks using existing roads.
- C. Water wells to be drilled:

6. Source of construction materials

- A. Location: Private sources (gravel)
- B. From Federal or Indian lands: None
- C. Additional materials: None

D. Access roads on Federal or Indian lands:  
As shown

7. Methods of handling waste disposal

- 1 & 2. Cuttings and drilling fluids: Deposited during drilling operations will be put in reserve pits.
3. Produced fluids: Tanks will be used for storage of produced fluids during testing.
4. Sewage: Sewage will be contained in a portable latrine or bored hole and a suitable chemical will be used to decompose waste materials.
5. Garbage and other waste materials: Garbage and other waste materials will be put in burn pit and all flammable materials will be burned. Burn pits will be enclosed with small mesh wire to prevent littering.

6. Proper clean-up of well-site: Upon completion of drilling all trash and litter will be picked up and placed in the burn pit which will be buried. The reserve pits will be fenced on three sides during drilling and the fourth side will be fenced when drilling is completed. They will remain fenced until dry at which time they will be backfilled.

8. Ancillary facilities

1. None planned.

9. Wellsite layout

1. Cuts and fills: See Diagram.
2. Location of pits and stockpiles: For location of mud tanks, reserve, burn and trash pits, pipe racks, living facilities and soil materials stockpiles, See Diagram.
3. Pad orientation: For rig orientation parking areas and access roads, see Diagram.
4. Lining of pits: No plans to line reserve pits at this time.
5. O.S.H.A. requirements: Area needed to conduct the fracturing operations in a safe manner and in accordance with O.S.H.A. standards will be within the areas already disturbed.

10. Plans for restoration of surface

1. Backfilling, leveling, contouring, and waste disposal: Topsoil will be stripped from the location and stockpiled for use after completion of contouring at which time it will be redistributed on the location. Backfilling of the reserve pits will be done as soon as the pits are dry. Contouring of the location will be done, in the event of a dry hole, to restore the surface to as near its original condition as possible. In the event of production those portions of the pad not needed for operations will be contoured in such a manner as to support vegetation and blend into the surrounding topography as much as possible. Waste disposal will begin immediately after completion of drilling. All trash and litter will be picked up, placed in the burn pit and buried.
2. Revegetation and rehabilitation: Revegetation of the location and access roads (those not left for landowner use) will begin with reseedling which will be done in the Spring or Fall of the year with the seed mixture specified by the appropriate agency or landowner. Rehabilitation of the location and access road will include contouring, replacement of topsoil and reseedling as discussed above.
3. Prior to rig release: The pits will be fenced on four sides to protect livestock and wildlife. Fence will remain until pits are backfilled.
4. Oil on pit will be removed or overhead flagging will be installed for the protection of waterfowl.
5. Timetable of rehabilitation operations: Commencement of rehabilitation work will be upon completion of drilling. Completion of rehabilitation work will depend on weather conditions and time required for pits to dry.

11. Other information used

1. Topography, soil characteristics, geologic features, flora and fauna:

The Topography of the General Area - (See Topography Map "A")

The area is a large basin formed by the Uintah Mountains to the North and the Book Cliff Mountains to the South.

The basin floor is interlaced with numerous canyons and ridges formed by the non-perennial streams of the area. The sides of these canyons are steep and ledges formed in sandstone ledges, conglomerate deposits, and shale are common in this area.

The geologic structures of the area that are visible are of the Uintah formation (Eocene Epoch) Tertiary Period in the upper elevations and the cobblestone and younger deposits from the Quaternary Period.

Outcrops of sandstone ledges, conglomerate deposits and shale are common in this area.

The topsoils in the area range from a light brownish-gray sandy clay (SM-ML) type soil with poorly graded gravels to a clayey (OL) soil.

The majority of the numerous washes and draws in the area are of a non-perennial nature flowing during the early spring run-off and heavy rain storms of long duration which are rare as the normal annual rainfall in the area is only 8".

Due to the low precipitation average, climatic conditions and the marginal types of soils, the vegetation that is found in the area are common of the semi-arid regions and consists of areas of sagebrush, rabbitbrush, some grasses and cacti as the primary flora. This is also true of the lower elevations.

The fauna of the area is sparse and consists predominantly of the mule deer, pronghorn antelope, coyotes, rabbits, and varieties of small ground squirrels and other types of rodents. The area is used by man for the primary purpose of grazing domestic sheep and cattle.

The birds of the area are raptors, finches, ground sparrows, magpies, crows and jays.

2. Surface-use and ownership:

3. Proximity of water, occupied dwellings, archeological, historical or cultural sites:

The Green River is located approximately 15 miles to the West of the location site.

There are no occupied dwellings or other facilities of this nature in the general area.

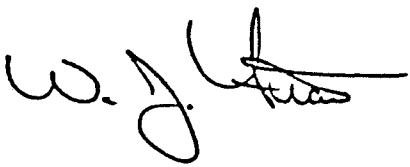
There are no visible archaeological, historical, or cultural sites within any reasonable proximity of the proposed location site.

12. Lessee or operator's field representative

ENERGY RESERVES GROUP, INC.  
P.O. BOX 3280  
CASPER, WYOMING 82602  
Phone No. 307-265-7331 (office)

13. Certification

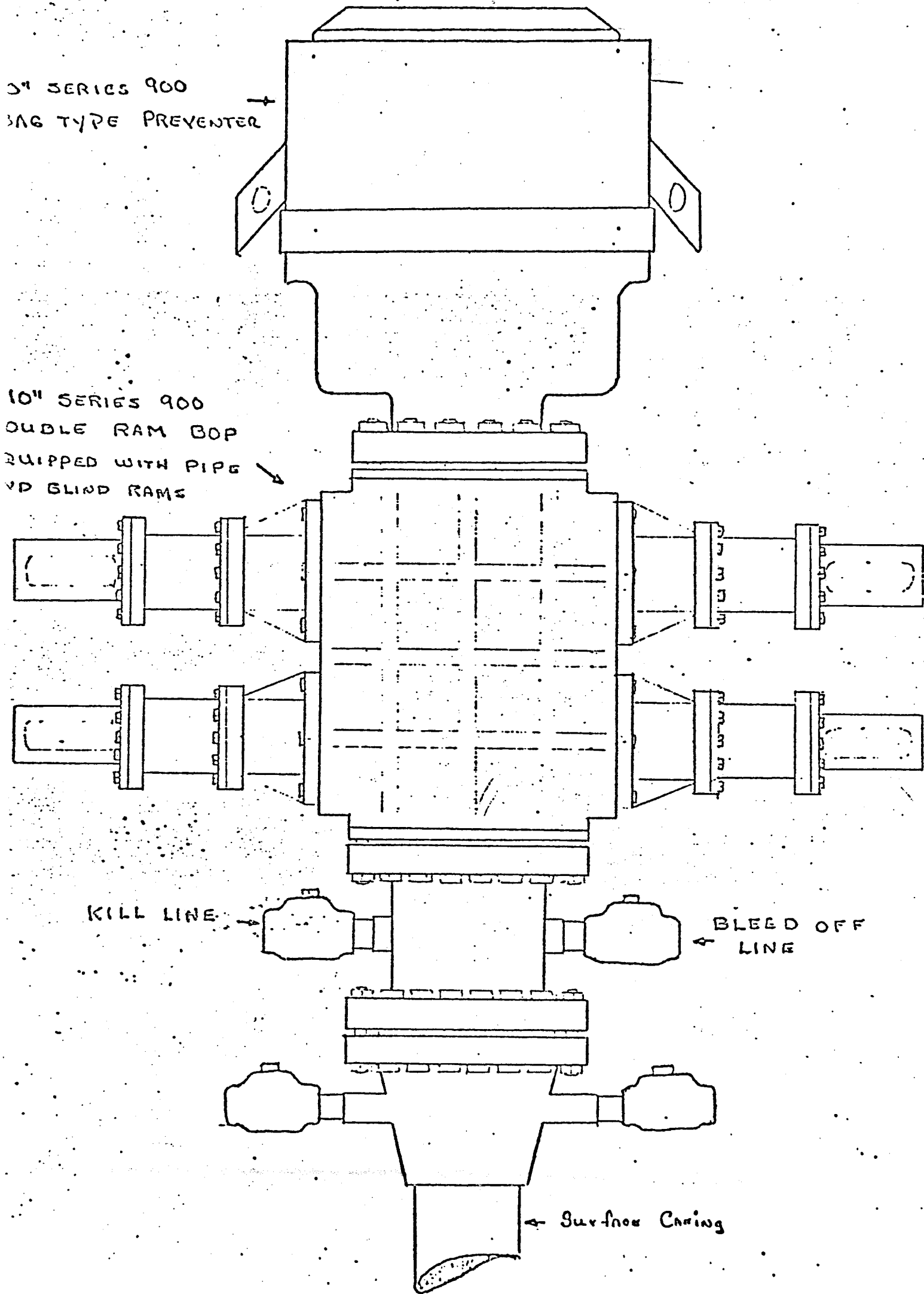
I hereby certify that I, or persons under my direct supervision have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will be performed by Energy Reserves Group, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.





5" SERIES 900  
SAG TYPE PREVENTER

10" SERIES 900  
DOUBLE RAM BOP  
EQUIPPED WITH PIPE  
AND BLIND RAMS



Identification CER/EA No. 353-81

United States Department of the Interior  
Geological Survey  
2000 Administration Bldg.  
1745 West 1700 South  
Salt Lake City, Utah 84104

NEPA CATEGORICAL EXCLUSION REVIEW

PROJECT IDENTIFICATION

Operator Energy Reserves Group, Inc.  
Project Type Oil Well  
Project Location 581' FNL 2042' FEL Section 9, T. 7S, R. 23E.  
Well No. Broadhurst 18 Lease No. U-02651-A  
Date Project Submitted March 16, 1981

FIELD INSPECTION Date March 31, 1981

Field Inspection Participants	Greg Darlington	USGS, Vernal
	Cory Bodman	BLM, Vernal
	Earl Cady	Ross Construction
	Durrell Karren	Energy Reserves

Related Environmental Documents: Unit Resource Analysis, Bonanza Planning  
Unit, BLM, Vernal

I have reviewed the proposal in accordance with the categorical exclusion review guidelines. This proposal would not involve any significant effects and, therefore, does not represent an exception to the categorical exclusions.

April 6, 1981  
Date Prepared

Gregory Darlington  
Environmental Scientist

I concur

4/9/81  
Date

Erwin  
District Supervisor

Typing In April 6, 1981 Typing Out April 6, 1981

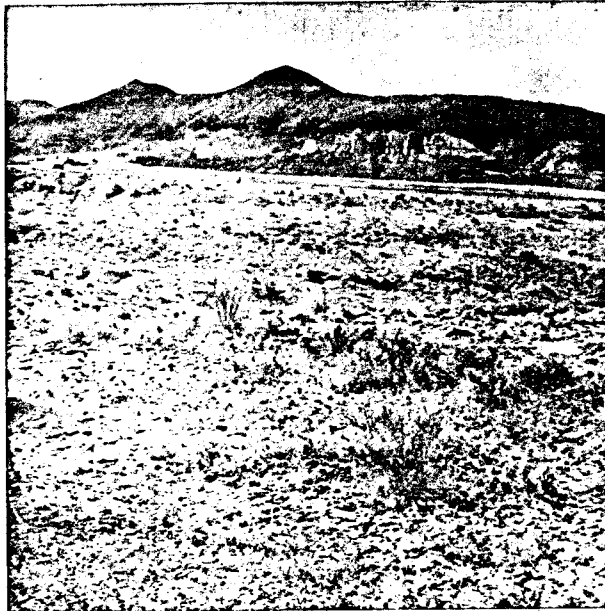
PROPOSED ACTION:

Energy Reserves Group proposes to drill the Broadhurst #18 well, a 5800' oil test of the Green River Formations. A 500' access road is planned for this location. At the onsite, we changed the proposed oil flowline route. The changed flowline route would not follow the access road and would proceed about 1000' directly to the existing tank battery nearby. A pad 185' by 325' and a reserve pit 75' by 150' are proposed for the location.

RECOMMENDED APPROVAL CONDITIONS:

The operator agrees to accept and adhere to the following conditions to the plans outlined in the APD:

1. BLM Stipulations
2. Lease Stipulations
3. Provide adequate logs for the identification of other minerals as requested in the Mineral Evaluation Report and Mining Report.



Proposed Revised Flowline  
Route Energy Reserves #18



West View  
Energy Reserves #18

FIELD NOTES SHEET

Date of Field Inspection: March 31, 1981

Well No.: Broadhurst #18

Lease No.: V-02651-A

Approve Location: ✓

Approve Access Road: ✓

Modify Location or Access Road: Rerouted a proposed oil pipeline route. It would go directly to the tank battery rather than follow existing roads.

Evaluation of Criteria for Categorical Exclusion

1. Public Health and Safety
2. Unique Characteristics
3. Environmentally Controversial Items
4. Uncertain and Unknown Risks
5. Establishes Precedents
6. Cumulatively Significant
7. National Register Historic Places
8. Endangered/Threatened Species
9. Violate Federal, State, Local, or Tribal Laws

If this project is not eligible for Categorical Exclusion circle the numbers of the above criteria requiring the preparation of an EA.

Comments and special conditions of approval discussed at onsite: (include local topography) Good location. Oil pipeline about 1000 feet instead of 1500 feet long now.

# CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

Criteria 516 DM 2.3.A	Federal/State Agency			Local and private corre- spondence (date)	Previous NEPA	Other studies and reports	Staff expertise	Onsite inspection (date)	Other
	Corre- spondence (date)	Phone check (date)	Meeting (date)						
1. Public health and safety							1,2,4,6	3-31-81	
2. Unique charac- teristics							1,2,4,6	3-31	
3. Environmentally controversial							1,2,4,6	3-31	
4. Uncertain and unknown risks							1,2,4,6	3-31	
5. Establishes precedents							1,2,4,6	3-31	
6. Cumulatively significant							1,2,4,6	3-31	
7. National Register historic places							1,6	3-31	
8. Endangered/ threatened species							1,6	3-31	
9. Violate Federal, State, local, tribal law							1,2,4,6	3-31	

## CATEGORICAL EXCLUSION REVIEW COMMON REFERENCE LEGEND

1. Surface Management Agency Input
2. Reviews Reports, or information received from Geological Survey  
(Conservation Division, Geological Division, Water Resource Division,  
Topographic Division)
3. Lease Stipulations/Terms
4. Application Permit to Drill
5. Operator Correspondence
6. Field Observation
7. Private Rehabilitation Agreement
8. *USGS conditions of approval.*

## U. S. GEOLOGICAL SURVEY - CONSERVATION DIVISION

FROM: DISTRICT GEOLOGIST, ME, SALT LAKE CITY, UTAH

TO: DISTRICT ENGINEER, O&amp;G, SALT LAKE CITY, UTAH

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-02651-AOPERATOR: Energy Reserves GroupWELL NO. 18LOCATION: C NW 1/4 NE 1/4 sec. 9, T. 7S, R. 23E, SIMUintah County, Utah

## 1. Stratigraphy:

Uintah	Surface
Green River	3050'
"G" zone	4570'
"H" zone	4875'
"I" zone	5120'
"J" zone	5400'

"K" zone	5550'
<u>TD</u>	<u>5800'</u>

## 2. Fresh Water:

Fresh water may be present in the Uintah and in upper Green River sandstones.

## 3. Leasable Minerals:

Oil/gas: Green River

Oil shale: Green River. Mahogany zone should occur at ~ 4475'.

4. Additional Logs Needed: Adequate5. Potential Geologic Hazards: None expected

## 6. References and Remarks:

Signature: Gregory W. WoodDate: 3 - 27 - 81



**\*\* FILE NOTATIONS \*\***

DATE: March 31, 1981  
OPERATOR: Energy Reserves Group, Inc.  
WELL NO: Broadhurst #18  
Location: Sec. 9 T. 7S R. 23E County: Huntan  
File Prepared: ☒ Entered on N.I.D: ☒  
Card Indexed: ☒ Completion Sheet: ☒  
API Number 43-047-30939

**CHECKED BY:**

Petroleum Engineer: M. J. Minder 4-22-81  
As an oil well only.

Director: \_\_\_\_\_

Administrative Aide: OK as per C-3 spacing; ok on landrys;  
OK on any other oil & gas wells.

**APPROVAL LETTER:**

Bond Required: ☐ Survey Plat Required: ☐  
Order No. \_\_\_\_\_ O.K. Rule C-3 ☐  
Rule C-3(c), Topographic Exception - company owns or controls acreage  
within a 660' radius of proposed site ☐  
Lease Designation 3ed. Plotted on Map ☐  
Approval Letter Written ☒  
Hot Line ☒ P.I. ☒



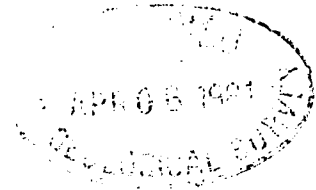
# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Vernal District Office  
170 South 500 East  
Vernal, Utah 84078

IN REPLY REFER TO  
T&R  
U-802

April 3, 1981

Ed Guynn, District Engineer  
USGS, Conservation Division  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, UT 84104



Re: Energy Reserve Group  
Well #18, Sec. 9, T7S, R22E  
Well #19, Sec. 9, T7S, R23E  
Well #20, Sec. 9, T7S, R23E  
Well #21, Sec. 9, T7S, R23E

Dear Mr. Guynn:

A joint examination was made on March 31, 1981, of the above referenced well site locations and proposed access roads. We feel that the surface use and operating plans are adequate with the following stipulations:

1. Construction and maintenance of roads, rehabilitation of disturbed areas, and construction of pipeline routes, shall be in accordance with surface use standards as set forth in the brochure, "Surface Operating Standards for Oil and Gas Exploration and Development".
2. Travelling off access road rights-of-way will not be allowed. The maximum width of access road (both existing and planned) will be 30 feet total disturbed area, except where backslopes and fills require additional area. Turnouts will not be required. The road will be crowned and bar ditches installed where needed.
3. It was agreed upon by all parties present that the applied for pad sizes are of adequate size to handle all drilling and fracturing operations.
4. The BLM must be contacted at least 24 hours prior to any construction activities.
5. The BLM will be contacted at least 24 hours prior to any rehabilitation activities. The operator may be informed of any additional needed seeding and restoration requirements.



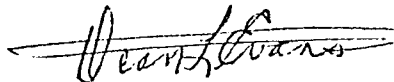
6. Burn pits will not be constructed. There will be no burning or burying of trash or garbage at the well sites. Refuse must be contained and hauled to an approved disposal site.
7. A wire mesh or net type of fence, topped with at least one strand of barbed wire, will be used around the reserve pits.
8. For Wells 18, 19, and 21, the top four to six inches of topsoil will be gathered and stockpiled between corners #7 and #8. No topsoil will be stockpiled at Well #20 as it is located in a "Badland" range site.
9. The proposed flowline routes are acceptable to this office provided surface disturbance is limited to building of low water crossing so that trucks and equipment can safely cross streams and drainages.

The proposed activities do not jeopardize listed, threatened, or endangered flora/fauna or their habitat.

A cultural resource clearance was conducted for all pads and roads. No cultural material was found.

The BLM representative will be Cory Bodman, 789-1362.

Sincerely,



Dean L. Evans  
Area Manager  
Bookcliffs Resource Area

cc: USGS - Vernal

DUPLICATE

SUBMIT IN TRIPLICATE  
(Other instructions on  
reverse side)Form approved.  
Budget Bureau No. 42-R1425.UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

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OTHER

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## 3. ADDRESS OF OPERATOR

Box 3280 Casper, Wyoming 82602

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At surface

At proposed prod. zone 581' FNL 2042' FEL

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Apporx. 18 miles south east of Jensen, Utah

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OR APPLIED FOR, ON THIS LEASE, FT. 1300'

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## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5078' GR

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June 1981

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APR 16 1981

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OIL, GAS & MINING

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SIGNED

*William J. Fiant*

TITLE Field Services Adm.

DATE 3-10-81

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

*W. J. Fiant*

FOR

E. W. GUINN  
DISTRICT ENGINEER

DATE

APR 14 1981

CONDITIONS OF APPROVAL, IF ANY:

cc. State of Utah **NOTICE OF APPROVAL**

E. Jones - B. Fiant - R. Gillespie

R. Radke - D. Karren

**CONDITIONS OF APPROVAL ATTACHED  
TO OPERATOR'S COPY***1 State Oil & Gas Commission***FLARING OR VENTING OF  
GAS IS SUBJECT TO NTL 4-A  
DATED 1/1/80**

ENERGY RESERVES GROUP  
PROPOSED LOCATION  
PEARL BROADHURST #18

TOPO.

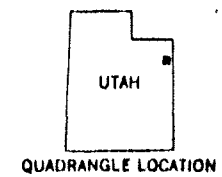
MAP "B"

SCALE - 1" = 2000'

ROAD CLASSIFICATION

Light-duty

Unimproved dirt



Left

JEEP

TRAIL

Fork

JENSEN 14.1 MILES  
VERNAL 27.1 MILES

T 6 S  
T 7 S

PROPOSED LOCATION  
PEARL BROADHURST #18

PROPOSED ACCESS  
ROAD 500'

WALKER  
PROPOSED

TANK  
BATTERY

HOLLOW

OIL

AND

GAS

FIELD

Oil Well

5405

Oil Well

5405

Oil Well

Oil Well

9

10

8

33

34

32

31

6

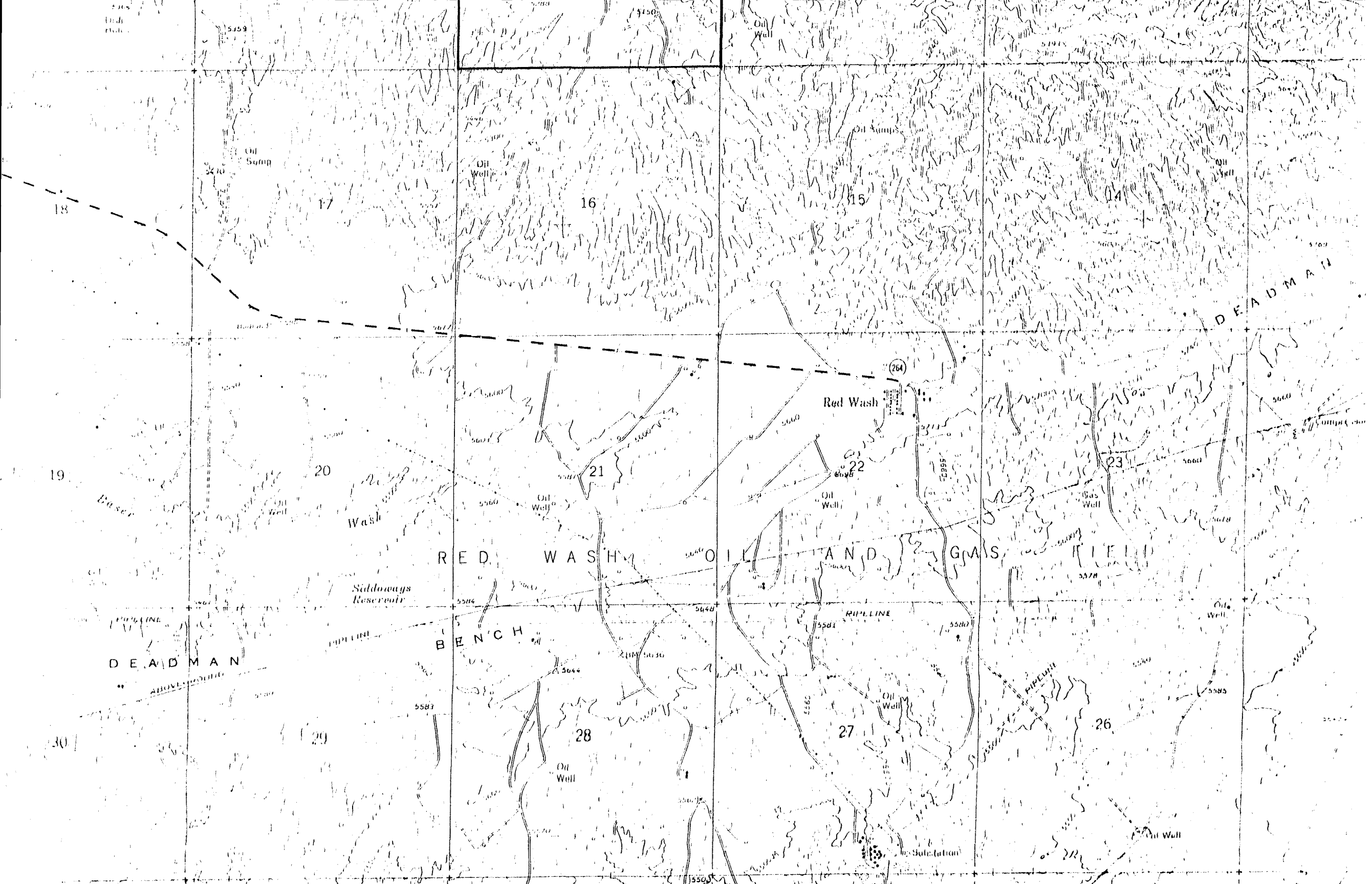
6

3

36

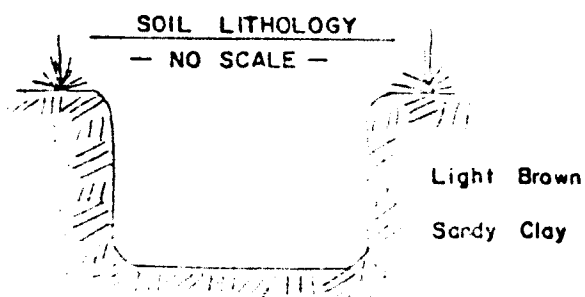
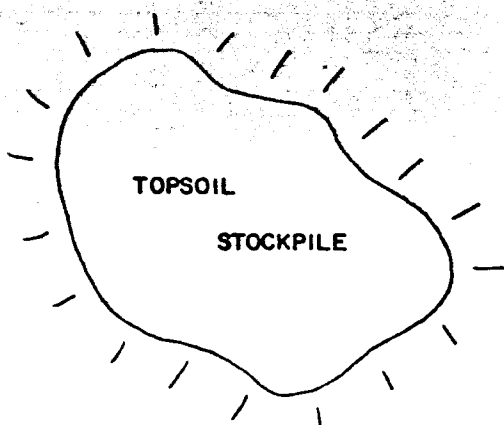
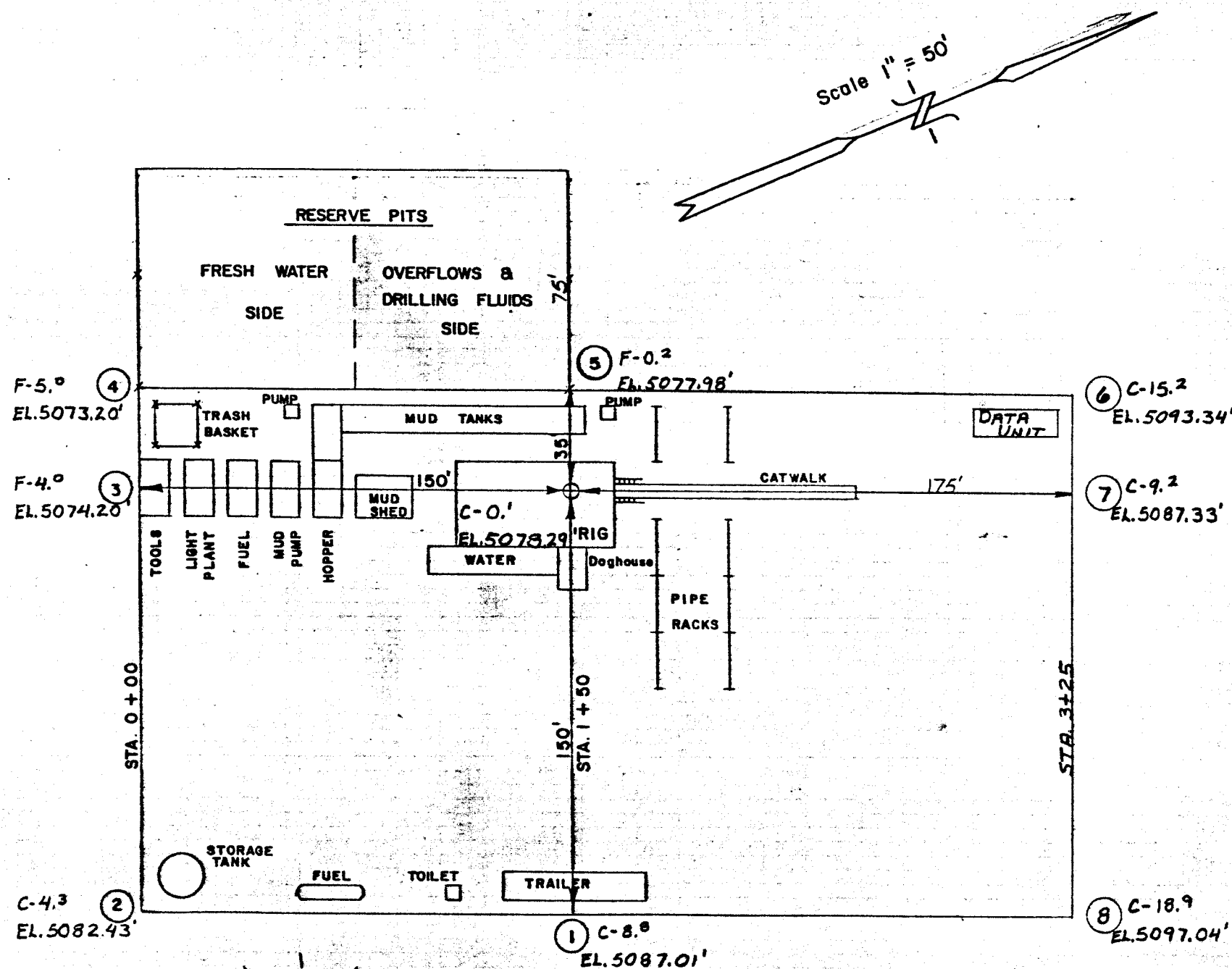
R 2 E

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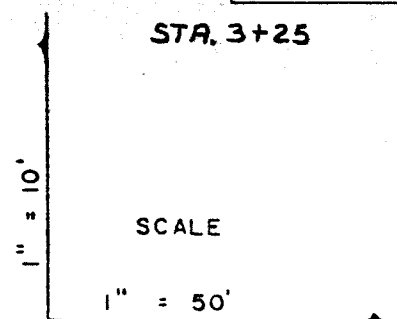
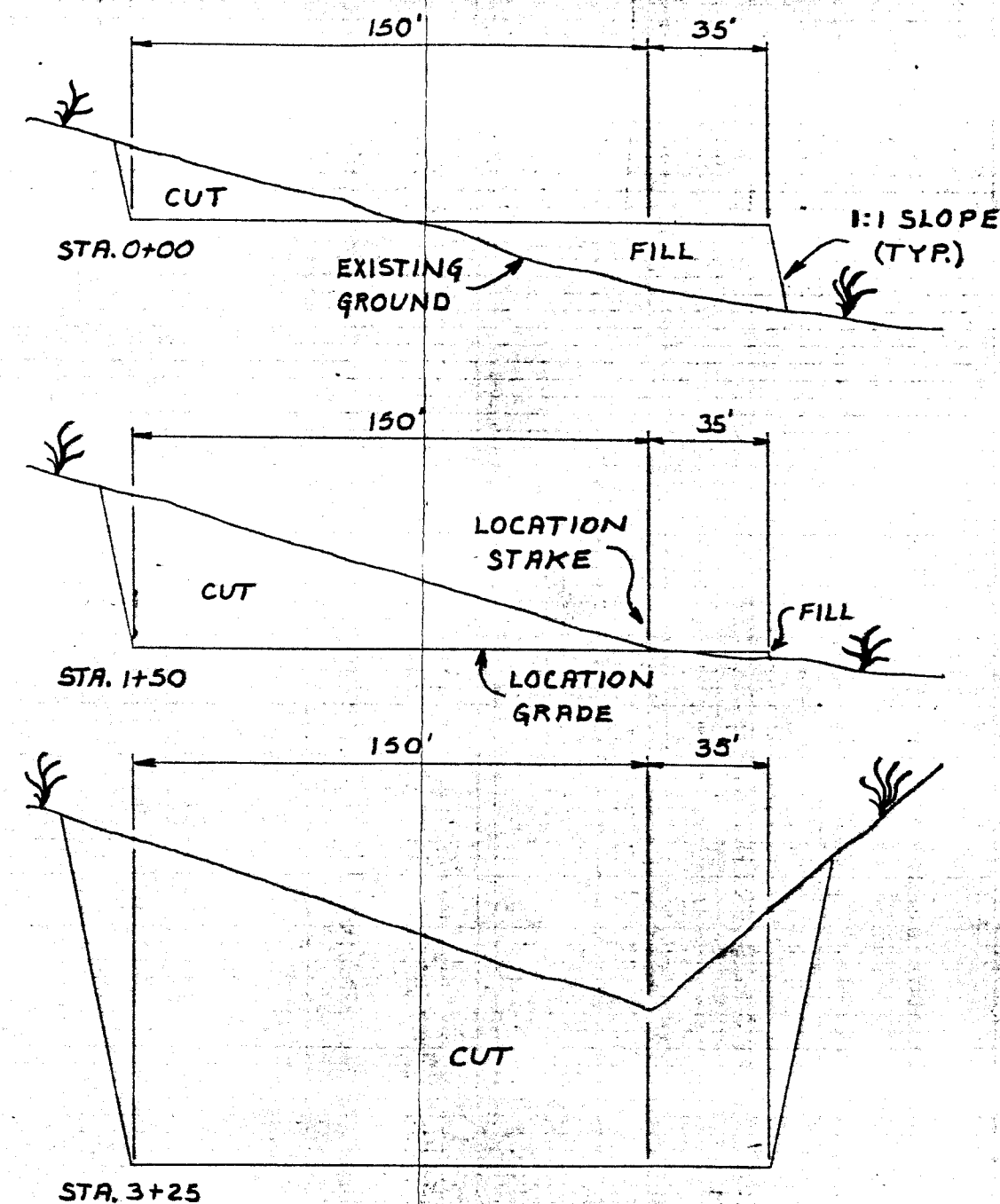


# ENERGY RESERVE GROUP

PEARL BROADHURST # 18



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## APPROXIMATE YARDAGES

Cubic Yards of Cut — 14,044

Cubic Yards of Fill — 881

April 29, 1981

Energy Reserves Group, Inc.  
Box 3280  
Casper, Wyoming 82602

Re: Well No. Broadhurst 18  
Sec. 9, T. 7S, R. 23E, NW NE  
Uintah County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil well is hereby granted in accordance with Rule C-3, General Rules and Regulations and Rules of Practice and Procedure. This well is approved to be ~~completed~~ as an oil well only.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Petroleum Engineer  
Office: 533-5771  
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-047-30939.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

  
Michael T. Minder  
Petroleum Engineer

MTM/ko  
cc: USGS



NOTICE OF SPUD

p Energy Reserves

Caller: N.D. Thomas

Phone: \_\_\_\_\_

Well Number: Pearl #18

Location: NWNE Broadhurst 9-7S-23E

County: Uintah State: Utah

Lease Number: U-02651-A

Lease Expiration Date: \_\_\_\_\_

Unit Name (If Applicable): Walker Hollow

Date & Time Spudded: 5-21-81 7:00 A.M.

Dry Hole Spudder (Rotary) \_\_\_\_\_

Details of Spud (Hole, Casing, Cement, etc.) 12 1/4" Hole

Rotary Rig Name & Number: MBF Drlg. #65

Approximate Date Rotary Moves In: \_\_\_\_\_

FOLLOW WITH SUNDRY NOTICE

Call Received By: KR

Date: 5-26-81

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Form Approved.  
Budget Bureau No. 42-R1424

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☒ gas ☐ other ☐  
well well

2. NAME OF OPERATOR  
Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR  
P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 581' FNL & 2,042' FEL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
CHANGE ZONES ☐  
ABANDON\* ☐  
(other) ☐

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(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The above referenced well was spudded @ 7:00 AM 5-21-81.  
Drilled 12-1/4" hole to 505' K.B. Ran 13 jts 8-5/8" O.D. 24#, K-55, R-3, 8Rth, new casing set @ 505' K.B. Cemented w/365 sx Class "G" cement w/2% CaCl<sub>2</sub> and 1/4# Flocele/sk. Plug down @ 5:10 AM 5-22-81. Good cement returns.  
Nipple up & pressure tested BOPE to 1200 psi--held o.k.  
Drilled out w/7-7/8" bit.  
5-26-81: Drilling 7-7/8" hole @ 3,180'.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_

18. I hereby certify that the foregoing is true and correct

SIGNED J. R. Thomas TITLE Drlg Foreman-RMD DATE 5-27-81

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☒ well gas ☐ well other ☐

2. NAME OF OPERATOR  
Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR  
P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 581' FNL & 2,042' FEL (NW/NE)  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

## REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
CHANGE ZONES ☐  
ABANDON\* ☐  
(other) ☐

## SUBSEQUENT REPORT OF:

☒  
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5. LEASE  
U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
USA Pearl Broadhurst

9. WELL NO.  
18

10. FIELD OR WILDCAT NAME  
Walker Hollow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 9-T7S-R23E

12. COUNTY OR PARISH  
Uintah

13. STATE  
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
G.L. 5,078' K.B. 5,091'

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The above referenced well was spudded @ 7:00 AM 5-21-81.

Drld 12-1/4" hole to 505'.

Ran 12 jts 8-5/8" O.D., 24#, K-55, R-3, ST&amp;C new casing set @ 505'.

Cemented w/365 sx of Class "G" cement w/3% CaCl<sub>2</sub> & 1/4# Flocele/sx. Good cement returns.

N.U. &amp; pressure tested BOPE to 1200 psi--held o.k.

Drld out w/7-7/8" bit.

Subsurface Safety Valve: Manu. and Type

Set @ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Karen C. Gilligan TITLE Drld Supt. - RMD DATE 6-1-81

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☒ gas ☐ other ☐  
well well well

2. NAME OF OPERATOR  
Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR  
P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 581' FNL & 2,042' FEL (NW/NE)  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other) Well History			X

5. LEASE  
U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
USA Pearl Broadhurst

9. WELL NO.  
18

10. FIELD OR WILDCAT NAME  
Walker Hollow

11. SEC., T., R., M. OR BLK. AND SURVEY OR AREA  
Sec. 9-T7S-R23E

12. COUNTY OR PARISH  
Uintah

13. STATE  
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
G.L. 5,078'; K.B. 5,091'

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The above referenced well was drilled to 5,426' (7-7/8") hole and ran logs. Ran 138 jts 5-1/2" O.D., 14#, K-55, R-3, ST&C new casing set @ 5,426' K.B. Cemented w/1,000 sx of HOWCO "Light" w/6% Gel; 3% Salt, 10# Gilsonite/sk & 1/4# Flocele/sx; followed by 500 sx of 50-50 Pozmix w/2% Gel, 0.6% Halad-9; 5% KCl & 1/4# Flocele/sx. Plug down @ 5:30 PM 6-4-81. Good cement returns to surface.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_

18. I hereby certify that the foregoing is true and correct

SIGNED Rose C. Gillespie TITLE Drlg Supt - RMD DATE 6-6-81

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

FORM OGC-8-X

FILE IN QUADRUPLICATE

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL & GAS CONSERVATION  
1588 West North Temple  
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number USA PEARL BROADHURST #18

Operator ENERGY RESERVES GROUP, INC. Address P.O. BOX 3280-Casper, WY 82602 - 307-265-7331

Contractor MGF DRILLING COMPANY Address P.O. Box 940-Mills, WY 82644 - 307-234-7389

Location NW 1/4 NE 1/4 Sec. 9 T. 7 N R. 23 ⑤ Uintah County, Utah  
W

Water Sands:

<u>Depth</u>	<u>Volume</u>	<u>Quality</u>	
<u>From</u>	<u>To</u>	<u>Flow Rate or Head</u>	<u>Fresh or Salty</u>
1.	<u>(During drilling operations no water flows were encountered. The drilling</u>		
2.	<u>was essentially water from surface to ± 2,650' and chemical/gel mud system</u>		
3.	<u>from ± 2,650' to T.D., with mud weights ranging from 8.9 - 9.3 ppg).</u>		
4.	<u></u>		
5.	<u></u>		

(Continue on reverse side if necessary)

Formation Tops:

Uintah @ surface  
Green River ± 2,804'

Remarks:

- NOTE:
- (a) Upon diminishing supply forms, please inform this office.
  - (b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure, (See Back of form).
  - (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form

## LITHOLOGY

- 3,200-3,300 95-100% SHALE - gy gn rdbrn orng yel brn mot, sft, sbblky, calc, occ sl sdy-mod slty occ grdg to SLTST, sft, arg, NSOFC.
- 3,300-3,400 80-95% SHALE - var col occ mot, sft-frm, sbblky-sbfis, calc, occ sl sdy-v slty grdg to SLTST, var col m gy dk brn, sft-hd, arg-occ sdy, sl calc, occ sil, n Ø, NSOFC.  
Tr PYR - gol, hd, mas.  
N-tr SANDSTONE - lt gy clr occ lt brn, frm-hd, f-vf gr cons occ sil cmt, occ tt, sme exc Ø, dd o stn, gen NSOFC.  
Tr-5% LIMESTONE - tan crm-m brn, frm, micxln micrite, sl-mod arg, n Ø, NSOFC.
- 3,400-3,420 10% SANDSTONE - clr wh occ lt brn, frm-hd, f gr cons sbang mod w srt, occ arg-slty, gen cln, NSOFC, v occ lt brn-gy dd o stn, NFOC.  
10% SILTSTONE - brn gy var col, sft-frm, arg-occ sdy, sl calc, n Ø, NSOFC.  
80% SHALE - gy gn brn yel rdbrn orng occ crm, sft, sbblk; sbfis, calc, occ sl sdy-slty, NSOFC.
- 3,420-3,440 40-50% SANDSTONE - lt-m brn occ m gybrn, frm-hd, f-vf gr cons sbang mod w srt, arg-slty, occ sl calc, fr-exc Ø, occ tt, gen fr-exc lt-m brn ptchy o stn, dul gn flor stng stmg cut.  
20% SILTSTONE - lt-m brn gybrn, frm-hd, arg, occ sdy, n-sl calc, n Ø, exc lt-m brn dd o stn, NFOC.  
20% SHALE - var col crm tan brn occ gy, sft-frm, sbblky, occ slty-sl sdy, occ v calc, exc dd o stn, NFOC.  
20% LIMESTONE - lt-m brn crm tan, frm-hd, micxln, micrite, arg, n Ø, exc brn dd o stn, NFOC.
- 3,440-3,500 30-50% SHALE - gy gn rdbrn yel brn crm tan, sft-frm, sbblky-fis, slty-sl sdy, gen calc, fr-g dd o stn, NFOC.  
20-30% LIMESTONE - crm tan lt brn-lt gybrn, sft-frm, vf-micxln, micrite, arg occ slty, n-vp intxln Ø, fr-g dd o stn, NFOC.  
30-40% SILTSTONE - lt-m brn, occ dk brn crm tan gybrn, frm-hd, arg-occ sl sdy, n-sl calc, n Ø, fr-g dd o stn, NFOC.
- 3,500-3,520 Tr-5% SANDSTONE - clr lt gy lt brn, frm-hd, vf-f gr cons mod w srt, arg-slty, occ sl calc, fr Ø, occ lt brn dd o stn, NFOC, gen cln, NSOFC.  
50% SILTSTONE - brn gybrn gy, frm-v hd, arg-occ sl sdy, n-sl calc, n Ø, fr dd brn o stn, NFOC.

LITHOLOGY (Cont.)

- 3,500-3,520  
(Cont.) 10% LIMESTONE - crm tan, frm-hd, gen a/a.  
35-40% SHALE - rdbrn brn gy occ gn, sft-occ frm, calc, slty-occ sl sdy, sme dd o stn, NFOC.
- 3,520-3,540 70% SILTSTONE - lt-dk brn gy gybrn, frm-hd, arg-v occ sl sdy, n-sl calc, n Ø, exc dd brn o stn, NFOC.  
Tr LIMESTONE - crm tan lt-m brn, frm-hd, vf-micxln, micrite, arg-occ slty, n Ø, fr dd o stn, NFOC.  
25-30% SHALE - brn gy occ gn occ rdbrn, sft-frm, calc, occ slty-sl sdy, occ sil, fr-g dd o stn, NFOC.
- 3,540-3,560 20% SANDSTONE - lt-dk brn, frm-hd, vf-f gr cons w srt, sl-mod arg-slty, fr-g intgr Ø, occ sil, occ tt, exc dk brn dif o stn, dul flor, stng stmg-flash cut.  
50% SILTSTONE - lt-dk brn gybrn-gy, frm-hd, arg-occ sme vf sd, n-sl calc, n-vp Ø, fr lt-m brn dif o stn, NF, wk stmg-dif cut.  
30% SHALE - brn gy occ rdbrn occ gn, sft-frm, gen as above.
- 3,560-3,620 40-60% SHALE - rdbrn gy brn gybrn, sft-frm, sbblky-sbfis, gen calc, slty-sl sdy, fr-vg dd o stn-tar str, NFOC.  
30-40% SILTSTONE - brn gy gybrn, frm-hd, arg-occ sme vf sd, n-sl calc, n Ø, fr lt-m brn dd o stn-tar str, NFOC.  
Tr-10% SANDSTONE - lt-m brn, lt-m gy, occ clr, vf gr cons, arg-slty, occ sl calc, p-fr Ø, sme fr dd o stn, dul flor, v wk cut.  
Tr LIMESTONE - tan, lt brn, crm, vf-micxln, micrite, arg, n Ø, occ dd o stn, NFOC.
- 3,620-3,640 60% SANDSTONE - lt gy crm, frm-hd, f-vf gr cons, sbang-sbrd, occ slty-arg, occ sil, occ tt, sme fr-exc Ø, sme f: lt-m brn ptchy-dif o stn, flor when cut, mod stng stmg cut.  
30% SHALE - var col, sft-frm, sbblky-sbfis, gen calc, occ slty-sl sdy, NSOFC.  
10% SILTSTONE - lt brn, crm, frm-hd, arg-occ sdy, n-sl calc, n Ø, tr dd o stn, NFOC, gen cln, NSOFC.
- 3,640-3,700 50-60% SHALE - gy brn rdbrn gn yel crm, sft-frm, sbblky-sbfis, gen calc, occ slty-sl sdy, NSOFC.  
10% SANDSTONE - lt gy, lt brn, tan, vf-f gr cons, gen w srt, occ arg-slty, sme fr-g Ø, occ lt brn dif o stn, wk gol flor, mod stng stmg cut.  
30-40% SILTSTONE - gy, gybrn, brn, occ rdbrn, frm-hd, arg, n Ø, NSOFC.

LITHOLOGY (Cont.)

- 3,700-3,740      20% SANDSTONE - lt gy, v lt-m brn, frm-hd, vf-f gr cons w srt, occ arg-occ slty, n-sl calc, occ sil cmt, occ tt, sme fr-g Ø, sme lt brn dif o stn, wk flor, stng dif cut, sme cln, NSOFC.  
50% SHALE - var col, gen as above.  
30% SILTSTONE - lt brn, crm, tan, occ gy, occ gngy, frm-hd, arg-occ sl sdy, n-sl calc, n Ø, n-tr dd o stn, NFOC.
- 3,740-3,760      98% SHALE - gn brn yel gy rdbrn orng crm, sft-frm, sbblky-occ sbfis, gen calc, sme slty grdg to arg SLTST, NSOFC.
- 3,760-3,800      10-20% SANDSTONE - clr, lt gy, wh, frm-hd, f-vf gr cons, sbang-sbrd, w srt, sl calc, gen fri, gen cln, n slt, n-sl arg, NSOFC, sme m gr uncons ang-sbang.  
Tr LIMESTONE - crm tan, frm, vf-micxln, micrite, arg, n Ø, NSOFC.  
30% SILTSTONE - crm, tan, lt brn, gy, gybrn, frm, arg-occ sme vf sd, occ sl calc, occ sil, tt, n Ø, NSOFC.  
45-55% SHALE - rdbrn yel, crm, orng, brn, gn, gy, sft-frm, sbblky-sbfis, occ slty-sl sdy, gen calc, NSOFC.
- 3,800-3,860      Tr-10% LIMESTONE - crm, gybrn-dk gy, frm-hd, crp-vfxln, micrite, occ arg, n-vp intxln Ø, occ tr dd o stn, NFOC.  
Tr-10% SANDSTONE - clr, lt gy-wh, occ v lt brn, sft-hd, f-vf gr cons gen w srt, gen fri, occ g calc cmt, occ sil cmt, gen NSOFC, occ tr lt brn dd o stn, NF, v wk cut occ m-c gr uncons.  
20-40% SILTSTONE -crm, gy, gygn, brn, orng, mot, sft-frm, arg, occ sdy, occ sil, occ tt, gen n Ø, NSOFC.  
40-60% SHALE - var col, sft-occ frm, sbblky-occ sbfis, occ slty-sl sdy, gen calc, NSOFC.
- 3,860-3,920      20-30% SANDSTONE - lt gy, lt brn, crl, wh, frm-hd, f-vf gr cons w srt, occ slty-arg, sl calc, gen fri, occ f gr uncons, fr-exc Ø, sme lt gy-lt brn dd o stn, NF, v wk dif cut.  
30-40% SILTSTONE - brn, gy, gybrn, occ orng, sft-hd, arg, occ sl sdy, sl-occ v calc, occ sil, n Ø, occ tr dd o stn, NFOC.  
Tr LIMESTONE - as above.  
30-50% SHALE - var col, sft-frm, sbblky-sbfis, sme slty-sl sdy, gen calc, NSOFC.



LITHOLOGY (Cont.)

- 3,920-3,960 40-60% SHALE - gy, gn, orng, yel brn, var col, mot, gen as above.  
30-50% SILTSTONE - var col, sft-hd, arg, occ sdy, n-sl calc, occ sil, occ tt, n Ø, NSOFC.  
Tr LIMESTONE - crm, tan, brn, gybrn, frm-hd, crp-vfxln, arg occ sl slty, n intxln Ø, NSOFC.
- 3,960-4,000 10% SANDSTONE - lt gy, lt-m brn, clr, frm-hd, f-vf gr cons, sbang, gen w srt, occ slty-arg, occ sl calc cmt, gen fri, exc Ø, occ lt-m brn-lt gy ptchy o stn, wk-mod stmg cut.  
20-40% SILTSTONE - gy, brn, yel orng, gn, sft-hd, arg, occ sil cmt, occ tt, gen n-p Ø, occ tr dd o stn, NFOC.  
50-70% SHALE - gy orng brn yel gn mot, sft-frm, sbblky-sbfis, occ slty-sl sdy, gen calc, NSOFC.
- 4,000-4,060 20-40% SANDSTONE - lt brn, crm, occ dk brn, clr, occ frstd, frm-hd, f-vf gr cons, gen w srt, occ slty-arg, n-sl calc, gen fri, fr-exc Ø, occ dk brn ptchy asphalt-lt brn dif o stn, bri yelgn flor when cut, stng stmg-wk dif cut.  
20-30% SILTSTONE - var col, occ mot, sft-frm, arg, occ sl sdy, n-sl calc, n Ø, occ tr lt brn dd o stn, NFOC.  
30-60% SHALE - var col, sft-frm, sbblky-fis, gen calc, occ slty-sl sdy, NSOFC.
- 4,060-4,100 20% SANDSTONE - wh, clr, occ frstd, sme lt-dk brn, frm-hd, f-vf gr cons, sbang-sbrd, w srt, gen cln, occ sl arg sl calc, gen fri, fr-exc Ø, gen NSOFC, occ lt-dk brn o stn, flor when cut, stng cut (cvgs).  
20-30% SILTSTONE - gen as above.  
50-60% SHALE - var col, sft-frm, sbblky-occ fis, gen calc, occ slty-sl sdy, NSOC.
- 4,100-4,120 10% SANDSTONE - lt gy, v lt brn, crm, wh, occ clr-frstd, f-vf gr cons, gen w srt, occ slty-arg, v fri, exc Ø, occ tr dd o stn, NF, v wk cut.  
40% SILTSTONE - brn, crm, gy, sft-hd, arg-occ sme vf sd, sl-mod calc, occ sil cmt, n Ø, v occ tr dd o stn, NFOC.  
50% SHALE - var col, sft-frm, sbblky, gen a/a.
- 4,120-4,140 10% SANDSTONE - lt brn, crm, clr, lt gy, frstd, frm-hd, f-vf gr cons, w srt, occ slty-arg, occ sme calc cmt, gen fri, fr-exc Ø, sme lt-dk brn o stn, flor when cut, mod-stng stmg-dif cut, gen cln, NSOFC.  
60% SHALE - rdbrn, gygn, crm, brn, sft-frm, blky-sbblky, occ slty-sl sdy, gen calc, NSOFC.

LITHOLOGY (Cont.)

- 4,120-4,140 (Cont.) 30% SILTSTONE - brn, gybrn, crm, tan, frm-hd, arg, occ sme vf sd, occ sil, n Ø, gen n-p Ø, occ tr dd o stn, NFOC.
- 4,140-4,160 70% SHALE - var col, sft-frm, sbblky-sbfis, occ slty-sl sdy, gen calc, NSOFC.  
25% SILTSTONE - var col mot, frm-hd, arg, as above.  
Tr SANDSTONE - clr, lt gy, vf gr cons, NSOFC.
- 4,160-4,180 30-40% SANDSTONE - clr, frstd, occ lt gy, occ lt brn, hd, c-f gr uncons sbang-sbrd, cln, NSOFC.  
40% SHALE - gn, gy, brn, yel, rdbrn, sbblky, occ slty-sl sdy, gen calc, NSOFC.  
20-30% SILTSTONE - gy, brn, mot, crm, sft-hd, arg-occ sdy, sl-mod calc, n-vp Ø, NSOFC.
- 4,180-4,190 60% SANDSTONE - clr, frstd, wh, lt gy, frm-hd, f-vf gr cons, gen w srt, w comp, sl arg-sl slty, occ sl calc, gen sil cmt/n-p Ø, occ fr Ø, NSOFC, sme c-f gr uncons sbrd-rd frstd.  
10% SILTSTONE - gy, gybrn, crm, sft-frm, arg, occ sdy, sl-mod calc, n Ø, NSOFC.  
30% SHALE - gy, gn, brn, orng, crm, tan, yel, sft-frm, sbblky-occ fis, gen calc, occ slty-sl sdy, NSOFC.
- 4,190-4,200 50% SHALE - var col, sft-frm, sbblky-sbfis, gen calc, occ v slty-sl sdy, NSOFC.  
50% SILTSTONE - var col, sft-frm, arg occ sdy, sl-mod calc, n Ø, NSOFC.
- 4,200-4,260 TR-20% SANDSTONE - clr, wh, lt gy, sme frstd, frm-hd, f-vf gr cons sbang w srt, occ arg-slty, gen cln, fr-vg Ø, NSOFC, sme m gr uncons rd-sbrd, frstd-clr.  
TR LIMESTONE - crm, wh, occ lt gy, sft-frm, vf-micxln, micrite, arg-occ slty, n dol, n-vp intxln Ø, NSOFC.  
10-20% SILTSTONE - gy, gn, lt-m brn, gybrn, sft-hd, arg-occ sl sdy, sl-mod calc, occ sil, gen n Ø, NSOFC.  
50-70% SHALE - gy, gn, rdbrn, orng, brn, yel, crm, sft-frm, sbblky-sbfis, gen calc, occ v slty-sl sdy, NSOFC.
- 4,260-4,300 TR-10% SANDSTONE - clr, frstd, f-vf gr cons w srt, f-m gr uncons, cln, fr-g Ø, NSOFC.  
TR-15% CHERT - lt gy, wh, frstd, v hd, ang.  
10-20% SILTSTONE - brn, gy, mot, crm, sft-hd, arg-occ sme vf sd, occ calc, sme sil cmt, occ tt, gen n Ø, NSOFC.  
50-75% SHALE - var col, sft-occ frm, gen a/a.
- 4,300-4,320 40% SILTSTONE - var col, sft-hd, arg-occ sdy, sl-mod calc, occ sil, occ tt, gen n-vp Ø, NSOFC.  
60% SHALE - gy, gn, orng, rdbrn, brn, yel, tan, crm mot, sft-frm, sbblky-sbfis, occ splty, gen calc, NSOFC.

LITHOLOGY (Cont.)

- 4,320-4,340      40% CHERT - wh, gy, frstd, smky, v hd, ang.  
10% SANDSTONE - clr, lt gy, wh, frm-hd, f-vf gr cons  
ang-sbang, mod w srt, cln, p-fr Ø, NSOFC.  
50% SHALE - gy, gn, orng, yel, brn, crm, mot, sft-frm,  
sbblky-sbfis, mod-v calc, occ slty-sl sdy, NSOFC.
- 4,340-4,360      70% SHALE - var col, sft-frm, sbblky, gen calc,  
NSOFC.  
30% SILTSTONE - crm, tan, brn, yel, gy, occ gn-gygn  
mot, sft-hd, arg-sme vf sd, sl-mod calc, occ sil, gen  
n-vp Ø, NSOFC.
- 4,360-4,400      10-30% CHERT - wh, clr, gy, frstd, smky, v hd, ang.  
10-20% SANDSTONE - clr, wh, lt gy, frstd, frm-hd, f  
vf gr cons w srt, occ arg-slty, sl calc, occ qtztc,  
sme c-f gr uncons, ang-sbang, NSOFC.  
10-20% SILTSTONE - var col, sft-hd, arg, sme sl sdy,  
sl-v calc, occ sil, gen n-vp Ø, NSOFC.  
30-60% SHALE - gy, gn, brn, orng, yel, crm, mot, var  
col, sft-frm, gen as above.
- 4,400-4,420      80% SHALE - var col mot, sft-frm, sbblky-occ sbfis,  
gen calc, sme slty-sl sdy, NSOFC.  
20% SILTSTONE - gy, brn, crm, occ gn, sft-hd, arg  
occ sdy, sl-v calc, n Ø, occ sil, NSOFC.
- 4,420-4,440      40% CHERT - gy, smky, clr wh, frstd, v hd, ang.  
30% SHALE - var col, sft-frm, sbblky, mod-v calc, occ  
slty-sdy, NSOFC.  
10% SANDSTONE - clr, wh, occ lt gy, f-vf gr cons, gen  
w srt, occ arg-slty, occ sl calc, fr Ø, gen cln, NSOFC.  
20% SILTSTONE - gy, brn, crm, gn, sft-frm, occ hd,  
arg, occ v sdy, sl-mod calc, occ sil, gen n-vp Ø, NSOFC.  
Tr CALCITE - clr, sft-frm, xln.
- 4,440-4,460      Tr CHERT - v hd, as above.  
10% SANDSTONE - clr frstd lt gy, frm-hd, f-vf gr cons  
sbang gen w srt, occ arg-slty, occ sl calc, gen fri,  
fr-g Ø, NSOFC.  
40% SILTSTONE - var col, sft-frm, arg, sme vf sd, sl-  
mod calc, n Ø, NSOFC.  
45-50% SHALE - var col, sft-frm, sbblky, gen as above.
- 4,460-4,480      Tr SANDSTONE - lt gy clr occ lt gybrn, sft-hd, f-vf  
gr cons w srt, arg-slty, sme calc cmt, p-fr Ø, NSOFC.  
60% SHALE - orng, gn, yel, brn, gy, rdbrn mot, sft-occ  
frm, sbblky-sbfis, occ splty, gen calc, NSOFC.  
35-40% SILTSTONE - gy gn brn crm tan gybrn, sft-hd,  
arg-occ sdy, sl-mod calc, occ sil, occ tt, gen n-vp Ø,  
NSOFC.
- 4,480-4,500      Tr-10% SANDSTONE - lt gy clr occ lt gybrn, sft-hd, f-vf  
gr cons gen w srt, arg-slty, sme calc cmt, occ sil cmt,  
sme p-fr Ø, occ tt, n Ø, NSOFC, xln PYR incl.  
30-40% SILTSTONE - var col, sft-hd, arg-occ sdy, sl-mod  
calc, n Ø, NSOFC.

LITHOLOGY (Cont.)

- 4,480-4,500  
(Cont.) Tr LIMESTONE - crm lt tan, frm-hd, micxln, micrite, arg, n intxln Ø, NSOFC.  
50-60% SHALE - var col mot, sft-frm, sbblky-sbfis occ splty, gen calc, sme slty-sl sdy, NSOFC.
- 4,500-4,530 Tr-10% SANDSTONE - lt gy wh clr, sft-hd, f-vf gr cons, arg-slty, sme calc cmt, gen p Ø, NSOFC.  
Tr LIMESTONE - crm lt tan, frm, micxln, micrite, arg, n Ø, NSOFC.  
60% SHALE - gn gy brn yel orng rdbrn crm mot, sft-frm, sbblky, occ slty-sl sdy, gen calc, NSOFC.  
25% SILTSTONE - var col, sft-hd, arg-sl sdy, sl-mod calc, n Ø, NSOFC.
- 4,530-4,600 10% SANDSTONE - clr wh, lt gy, sft-hd, f-vf gr cons gen w srt, arg-slty, sme calc cmt, occ fr Ø, gen n-vp Ø, NSOFC.  
20-40% SILTSTONE - gy brn gn occ rdbrn gybrn, sft-hd, arg-occ sl sdy, sl-occ v calc, occ sil occ tt, gen n Ø, NSOFC.  
50-70% SHALE - var col mot, sft-occ frm, sft-occ frm, sbblky-occ fis-occ splty, gen calc, NSOFC.  
Tr CHERT.
- 4,600-4,640 Tr-20% SANDSTONE - lt gy, occ lt brn, lt gybrn clr, f-vf gr cons w srt, arg-slty, occ sl calc, gen p Ø, NSOFC.  
30-50% SILTSTONE - brn, gy, crm mot, sft-hd, arg-occ v sdy, sl-v calc, occ sil, gen n Ø, NSOFC.  
30-60% SHALE - gn gy brn crm yel orng rdbrn var col mot, sft-frm, sbblky-sbfis, occ fis-splty, gen calc, sme slty-sdy, NSOFC.
- 4,640-4,660 10% SANDSTONE - clr lt gywh, sft-hd, f-vf gr cons gen w srt, arg-slty, occ calc cmt, occ qtztc, sil cmt, sme fr-g Ø, NSOFC.  
40-50% SHALE - var col, sft-frm, as above.  
40-50% SILTSTONE - gy brn occ gn crm, occ rdbrn mot, sft-hd, arg-occ sdy, sl-v calc, occ sil, NSOFC.  
Tr PYRITE - gol, hd, mas-xln.
- 4,660-4,690 20-30% SANDSTONE - lt gy wh lt brn crm, sft-hd, f-vf gr cons gen w srt, sme arg-slty, occ calc cmt, occ qtztc, sil cmt, gen p-occ fr Ø, v occ tr dd o stn, NF, wk-mod cut.  
20-40% SILTSTONE - lt-m brn gy gybrn occ gn occ rdbrn, sft-hd, gen as above.  
30-60% SHALE - var col, sft-frm, sbblky-sbfis, occ slty-sl sdy, gen calc, tr tar str, NFOC.
- 4,690-4,700 40% SANDSTONE - lt brn lt gy, frm-hd, f-vf gr sbang-ang w srt, n-sl arg-sl slty, gen fri, n calc, fr-exc Ø, lt brn dif-ptchy o stn, bri yel flor, wk dif-stng stmg cut.  
25% SHALE - gn brn gy yel rdbrn tan, sft-frm, sbblky-occ fis occ splty, gen sl slty-sl sdy, NSOFC.

LITHOLOGY (Cont.)

- 4,690-4,700  
(Cont.) 35% SILTSTONE - var col, sft-hd, arg-sdy, sl-mod calc, occ sil, gen n-vp Ø, occ tr lt brn dd o stn/NF, n-v wk cut.
- 4,700-4,710 50% SANDSTONE - wh lt gy lt brn crm, frm-hd, f-vf gr cons w srt, sme arg-slty, occ calc cmt, gen fri/fr-exc Ø, lt gy-v lt brn dif-ptchy o stn/dul-bri yel-yelgn flor mod-stng stmg cut.  
20% SHALE - var col, sft-frm, gen as above.  
30% SILTSTONE - var col, sft-hd, as above.
- 4,710-4,720 50% SANDSTONE - lt gy lt brn crm, frm-hd, f-vf gr cons w srt, occ sl arg-sl slty, n-sl calc, gen fri/exc Ø, fr-occ lt brn-lt gy dif o stn/dul-bri yel flor, stng stmg cut.  
35% SILTSTONE - gy brn rdbrn crm gn, frm-hd, v arg-sdy, sl-mod calc, occ sil, n-p Ø, occ fr lt brn-lt gy dif o stn, n-tr flor, n-v wk cut.  
15% SHALE - gn gy brn rdbrn yel tan crm var col mot, sft-frm, sbblky, gen calc, occ dd o stn/NFOC.
- 4,720-4,740 50% SILTSTONE - gy gn brn gybrn crm occ rdbrn, sft-frm, arg, occ sme vf sd, sl-mod calc, gen NSOFC.  
45% SHALE - var col, sft-frm, sbblky-sbfis, occ splty, gen calc, occ slty-sl sdy, gen NSOFC.
- 4,740-4,750 10% SANDSTONE - lt gy lt brn crm clr, frm-hd, f-vf gr cons w srt, sme arg-slty, n-sl calc, gen fri/fr-exc Ø, lt gy-lt brn dif-ptchy o stn/dul flor-flor when cut, mod stmg cut.  
30% SILTSTONE - gy gybrn lt-m brn crm mot, frm-hd, arg occ sdy sl-mod calc, occ sil, gen n-vp Ø, tr gy-gybrn dd o stn/NFOC.  
60% SHALE - gy brn yel crm rdbrn gy, sft-frm, sbblky-occ sbfis, gen calc, occ slty-sme vf sd, v occ tr tar str, NFOC.
- 4,750-4,760 30% SANDSTONE - lt-m brn lt-m gy, frm-hd, f-vf gr cons sbang w srt, occ arg-slty, n-sl calc, gen v fri/exc Ø, exc lt-m brn dif o stn/bri yel flor, stng stmg cut.  
40% SILTSTONE - gy brn occ rdbrn occ gn crm mot, sft-hd, arg-occ sdy, sl-mod calc, occ sil, gen n-p Ø, occ tr dd o stn, NFOC, gen NSOFC.  
30% SHALE - var col, sft-frm, sbblky, gen calc, occ slty-sl sdy, NSOFC.
- 4,760-4,770 30% SANDSTONE - crm lt brn lt-m gy, frm-hd, f-vf gr cons gen w srt, occ arg-slty occ sil cmt, n-sl calc, gen fri, fr-exc Ø, fr-exc lt brn-crm o stn, bri yel-gn flor, stng stmg-dif cut.  
45% SHALE - var col, sbblky-sbfis occ splty gen calc, occ slty-sl sdy, occ dd o stn, NFOC.  
25% SILTSTONE - gy gybrn lt-m brn crm, sft-hd, arg-occ sl sdy, sl-mod calc, occ sil, n-vp Ø, occ dd o stn/NFOC.

LITHOLOGY (Cont.)

- 4,770-4,780 25% SANDSTONE - crm lt brn gy, frm-hd, f-vf gr cons gen w srt, sme arg-slt, occ sil cmt, gen fri/fr-vg Ø, vg-exc lt-m brn dif o stn/bri yel flor, mod stmg cut. 20% SILTSTONE - var col, sft-hd, arg-occ sdy, sl-mod calc, occ sil, gen n-vp Ø, occ dd o stn/NFOC. 55% SHALE - var col mot, sft-frm, sbblky occ splty, gen calc, occ slty-sl sdy, NSOFC.
- 4,780-4,790 50% SILTSTONE - brn gn gy orng rd mot, sft-hd, arg-occ sdy, sl-mod calc, n-vp Ø, occ dd o stn/NFOC. 50% SHALE - gy gn brn rdbrn rd orng crm, sft-frm, sbblky-sbfis, gen calc, occ slty-sl sdy, NSOFC.
- 4,790-4,800 65% SHALE - var col mot, sft-frm, gen as above. 35% SILTSTONE - rdbrn orng gy gn brn crm, sft-frm, arg-occ sl sdy, sl-mod calc, n-vp Ø, occ brn-gybrn dd o stn/NFOC.
- 4,800-4,870 Tr-10% SANDSTONE - clr wh lt gy, frm-hd, f-vf gr cons gen w srt, sl arg-sl slty, sl calc, gen fri/fr-g Ø, NSOFC. Tr-10% LIMESTONE - wh crm, sft, micxln, micrite, sl arg, n intxln Ø, NSOFC. 40-60% SHALE - gy brn gn rdbrn yel orng crm mot, sft-frm blky-sbfis occ splty, gen calc, occ slty-sl sdy, NSOFC. 20-50% SILTSTONE - lt-dk gy gybrn brn crm gn, occ rdbrn, sft-hd, arg-occ v sdy, sl-mod calc, occ sil, n-vp Ø, NSOFC.
- 4,870-4,890 55-70% SHALE - gn rdbrn yel orng gy brn crm mot, sft-frm, sbblky-sbfis occ splty, gen calc, NSOFC. 25-40% SILTSTONE - gy gn brn gybrn occ orng-rdbrn mot, sft-hd, arg-sdy, sl-mod calc, occ sil, occ tt, gen n-vp Ø, NSOFC. Tr-10% SANDSTONE - clr frstd, hd, f-m gr uncons, sbang-rd, p srt.
- 4,890-4,910 50% SANDSTONE - clr frstd, hd, m-c gr uncons ang-rd, p srt. 40% SHALE - var col, sft-frm, sbblky-sbfis, gen as above. 10% SILTSTONE - gy brn gn rdbrn mot, sft-frm, arg-occ sl sdy, sl calc, n Ø, NSOFC.
- 4,910-4,920 20% SANDSTONE - clr frstd, hd, m-c gr uncons ang-sbrd, p srt. 20% SILTSTONE - var col gy brn crm mot, sft-frm, arg-occ sl sdy, sl-mod calc, n Ø, NSOFC. 60% SHALE - rdbrn orng brn gy gn yel crm tan mot, sft-frm, sbblky-occ sbfis, gen calc, NSOFC.

LITHOLOGY (Cont.)

- 4,920-5,010 50-60% SHALE - gy gn brn rdbrn crm yel orng mot, sft-frm, sbblky-sbfis occ fis occ splty, gen calc, occ mod slty-sme vf sd, NSOFC.  
35-55% SILTSTONE - gy brn crm tan gybrn gygn gn occ rdbrn, sft-frm, arg-occ v sdy, gen sl-mod calc, n-vp Ø, NSOFC.  
Tr LIMESTONE - tan crm lt brn, lt gybrn, frm-hd, micxln, micrite, mod arg, n intxln Ø, NSOFC.
- 5,010-5,020 10% SANDSTONE - clr lt gy frstd wh, frm-hd, f-vf gr cons gen w srt, n-sl arg-sl slty, sl calc, fr-p Ø, NSOFC.  
40% SILTSTONE - var col gy brn gn mot, sft-hd, arg-occ v sdy, sl-mod calc, occ sil, gen n-vp Ø, NSOFC.  
50% SHALE - var col, sbblky-sbfis occ splty, gen calc, occ slty-sl sdy, NSOFC.
- 5,020-5,050 10-20% SANDSTONE - clr wh lt gy frstd, frm-hd, f-vf gr cons w srt, sme arg-slty, gen fri/fr Ø, NSOFC, f-m gr uncons sbang-rd, p srt.  
20-30% SILTSTONE - gy gn brn crm tan sme rdbrn mot, var col, gen as above.  
50-70% SHALE - gy gn brn crm yel orng rdbrn mot, sft-frm, sbblky-sbfis, gen calc, occ slty-sl sdy, NSOFC.
- 5,050-5,060 Tr SANDSTONE - clr frstd lt gy, gen f-m gr uncons sbrd, occ f-vf gr cons, arg, p Ø, NSOFC.  
60% SHALE - var col, sbblky-sbfis, as above.  
35% SILTSTONE - var col mot, sft-frm, arg-sl sdy, gen n Ø, NSOFC.
- 5,060-5,100 Tr-10% SANDSTONE - clr lt brn lt gy crm, sft-hd, f-vf gr cons mod w srt, arg-slty, sme g calc cmt, gen p-occ fr Ø, NSOFC.  
20-30% SILTSTONE - gy brn gn crm occ rdbrn, sft-hd, arg-occ sl sdy, sl-mod calc, occ sil, gen n-vp Ø, NSOFC.  
60-80% SHALE - gn brn gy tan yel orng rdbrn mot, sft-frm sbblky-sbfis, occ splty, gen calc, occ slty-sl sdy, NSOFC.
- 5,100-5,110 35% SANDSTONE - clr wh lt gy, frm-hd, f-vf gr cons w srt, occ arg-sl slty, gen fri/fr-exc Ø, NSOFC.  
40% SHALE - gn rdbrn yel brn gy crm mot, sft-frm, sbblky-occ sl-mod slty, n-sl sdy, gen calc, NSOFC.  
20% SILTSTONE - gy gybrn brn tan, sft-hd, arg occ sdy, n-mod calc, occ sil, n Ø, NSOFC.
- 5,110-5,120 60% LIMESTONE - crm tan lt brn, frm, ool/micxln mtx, sl arg, n Ø, fos, NSOFC.  
30% SHALE - var col, sft-frm, sbblky, occ slty-sl sdy, gen calc, NSOFC.  
10% SILTSTONE - gy gybrn occ crm, sft-frm, arg-occ sme vf sd, sl calc, n Ø, NSOFC.

LITHOLOGY (Cont.)

- 5,120-5,140      10% LIMESTONE - crm tan lt brn, frm, ool/micxln mtx,  
sl arg, n Ø, NSOFC.  
Tr-10% SANDSTONE - clr lt gy occ frstd, frm-hd, f-vf gr  
cons mod w srt, sme sil cmt, occ sl calc, p-occ fr Ø,  
NSOFC.  
Tr CHERT - lt gy wh smky, v hd, ang.  
60% SHALE - gy gn brn rdbrn orng yel tan mot, sft-frm,  
sbblky-occ sbfis, gen calc, occ mod slty-sl sdy, NSOFC.  
15-20% SILTSTONE - lt-m gy gybrn brn tan gn mot, sft-frm  
arg-occ v sdy, sl-mod calc, n Ø, NSOFC.
- 5,140-5,180      Tr-10% SANDSTONE - lt gy clr occ wh, frm-hd, f-vf gr  
cons mod w srt, arg-slty, sl calc, occ sil cmt, gen  
fr-occ p Ø, NSOFC.  
60-80% SHALE - gybrn gn rdbrn yel orng tan mot, sft-frm,  
sbblky-sbfis, occ fis-occ splty, gen calc, occ slty-  
sme vf sd, NSOFC.  
10-30% SILTSTONE - var col brn gy occ gn mot, sft-frm,  
arg-occ sl sdy, sl-occ v calc, n-vp Ø, NSOFC.
- 5,180-5,200      10-20% SANDSTONE - clr lt gy occ frstd, f-vf gr cons  
gen w srt, occ arg-sl slty, n-sl calc, gen fri/p-occ  
fr Ø, NSOFC, occ f-m gr uncons sbang-rd, p srt.  
60-70% SHALE - var col mot, sft-frm, gen a/a.  
10-30% SILTSTONE - gy gybrn, brn, occ rdbrn, occ gn,  
sft-frm, arg-occ sdy, sl-mod calc, n Ø, NSOFC.
- 5,200-5,210      40% SANDSTONE - lt gy lt gybrn clr, frm-hd, f-vf gr  
cons gen w srt, occ arg-occ slty, sl calc, occ sil  
cmt, gen fri/fr-p Ø, NSOFC.  
30% SILTSTONE -gy gybrn brn crm occ grn, sft-frm, arg-  
occ slty-sl sdy, gen calc, NSOFC.  
30% SHALE - gy gn brn crm rdbrnyel, sbblky, occ slty-  
sl sdy, gen calc, NSOFC.
- 5,210-5,260      Tr-10% SANDSTONE - clr lt gy, frm-hd, f-vf gr cons  
gen w srt, occ sl arg-occ sl slty, sl-mod calc, occ  
qtztc/sil cmt, gen fri/fr-occ p Ø, NSOFC.  
20-40% SILTSTONE - var col gy-brn, sft-hd, arg-occ sl  
sdy, sl-occ v calc, n Ø, NSOFC.  
50-70% SHALE - var col mot, sf-frm, sbblky-sbfis  
occ splty, gen calc, occ slty-sl sdy, NSOFC.
- 5,260-5,290      10-20% SANDSTONE - clr lt gy, frm-hd, f-vf gr cons as  
above, NSOFC.  
60-70% SHALE - gy gn brn tan yel rdbrn mot, sft-frm,  
sbblky-sbfis occ fis-splty, gen calc, occ slty-sl sdy,  
NSOFC.  
10-30% SILTSTONE - gy brn tan crm, occ gn, occ rdbrn,  
sft-hd, arg-occ sdy, sl-mod calc, occ sil, n-vp Ø,  
NSOFC.



LITHOLOGY (Cont.)

- 5,290-5,300 50% SANDSTONE - clr lt gy, occ frstd, frm-hd, f-vf gr cons gen w srt, occ sl arg-sl slty, gen fri/p-fr Ø, NSOFC.  
30% SHALE - gy brn gn yel orng rdbrn occ tan mot, sft-frm, sbblky, gen calc, occ slty-sme vf-f sd, NSOFC.  
10% LIMESTONE - wh, micxln, micrite, NSOFC.  
10% SILTSTONE - gy brn crm, occ gn, sft-hd, arg-occ sl sdy, sl-occ v calc, occ sil, n Ø, NSOFC.
- 5,300-5,310 20% SANDSTONE - clr wh lt gy sme frstd, sft-hd, f-vf gr cons p-mod w srt, arg-sl slty, sme g calc cmt, gen fri/fr-p Ø, NSOFC, occ m-vc gr uncons ang-rd, p srt.  
50% SHALE - gn gy brn rdbrn occ yel crm, sft-frm, sbblky fis occ splty, gen calc, occ slty-sl sdy, NSOFC.  
30% SILTSTONE - gy brn gybrn , gen as above.
- 5,310-5,330 10% SANDSTONE - clr wh lt gy occ frstd, sft-hd, f-vf gr cons gen w srt, occ arg-slty sme fr-g calc cmt, gen w comp, fr-p Ø, NSOFC, occ m-vc gr uncons ang-rd, p srt.  
30-40% SILTSTONE - gy gybrn, brn occ gn, occ lt brn, sft-frm, arg-occ mod sdy, sl-mod calc, n-vp Ø, NSOFC.  
40-60% SHALE - var col, sft-frm, sbblky-fis, occ splty, gen calc, occ slty-sme vf sd, NSOFC.
- 5,330-5,350 20-30% SANDSTONE - wh lt gy clr occ frstd, sft-hd, f-vf gr cons mod w srt, occ arg-slty, sme g calc cmt, w comp, occ qtztc/sil cmt, fr-vp Ø, NSOFC.  
40-50% SHALE - gn gy brn orng rdbrn yel occ mot, sft-frm, sbblky-fis, gen calc, occ mod slty-sl sdy, NSOFC.  
20-40% SILTSTONE - gy gybrn brn occ gn occ mot, sft-frm, arg-occ sdy, sl-mod calc, n-vp Ø, NSOFC.
- 5,350-5,370 30% SANDSTONE - clr lt gy lt brn lt gybrn, frm-hd, f-vf gr cons sbang w srt, occ arg-sl slty, gen fri/fr-p Ø, occ qtztc/sil cmt, tr lt dd o stn/NFOC.  
55% SHALE - gy brn gybrn occ orng mot, sft-frm, sbblky-fis-splty, gen calc, occ sl tr dd o stn/NFOC.  
15% SILTSTONE - gy brn gybrn, sft-frm, arg-occ sl sdy, sl-mod calc, n Ø, tr lt-m brn dd o stn/NFOC.
- 5,370-5,380 30% SANDSTONE - lt gy lt gybrn occ lt brn occ clr, frm-hd, f-vf gr cons w srt, occ sl arg-sl slty, n-sl calc, gen fri/fr-vg Ø, occ tr-p lt gy-lt brn o stn/v wk dul gn flor, v wk stmg cut.  
20% SILTSTONE - gy gybrn occ lt-m brn occ gn, sft-frm, arg-sl sdy, sl-mod calc, n Ø, v occ tr dd o stn/NFOC.  
50% SHALE - gy brn gybrn gn occ orng, sft-frm, sbblky-fis sme splty, gen calc, NSOFC.
- 5,380-5,390 20% SANDSTONE - clr lt gy occ wh occ lt brn, frm-hd, f-vf gr cons gen w srt, occ sl arg-sl slty, gen fri/fr-g Ø, occ tr lt gy-lt brn dif o stn/wk flor, n-v wk cut, gen dd o stn.  
40% SILTSTONE - gy gybrn brn, sft-frm, arg-sl sdy, sl-m calc, n Ø, v occ tr dd o stn/NFOC.

LITHOLOGY (Cont.)

- 5,380-5,390  
(Cont.) 40% SHALE - gy brn occ gn mot, sft-frm, sbblky-splty, gen calc, occ sl slty-sl sdy, NSOFC.
- 5,390-5,400 20% SANDSTONE - clr lt gy occ wh occ lt brn, frm-hd, f-vf gr cons gen w srt, occ sl arg-sl slty, gen fri/fr Ø, occ tr lt gy dif o stn/wk flor, n-v wk cut, gen dd o stn.  
65% SHALE - var col, gen as above.  
15% SILTSTONE - gy gybrn, lt-m brn, occ gn, sft-frm, arg-occ sl sdy, sl calc, n Ø, v occ tr dd o stn, NFOC, gen NSOFC.
- 5,400-5,410 35% SANDSTONE - lt gy lt brn lt gybrn wh occ clr, frm-hd, f-vf gr cons mod w srt, occ sl arg-sl slty, sl calc, gen fri/fr-exc Ø, g lt brn-lt gy ptchy o stn/gn flor when cut, mod wk stmg cut-wk dif cut.  
20% SILTSTONE - gy gybrn occ gn occ lt-m brn, sft-frm, arg-occ sl sdy, sl-mod calc, n-vp Ø, v occ tr dd o stn/NFOC, gen NSOFC.  
45% SHALE - gy gn lt-m brn gybrn, sft-frm, sbblky, gen calc, occ slty-sl sdy, NSOFC.
- 5,410-5,425 15% SANDSTONE - lt gy clr occ lt brn, frm-hd, f-vf gr cons gen w srt, occ sl arg-sl slty, occ sl calc, gen fri/fr-vg Ø, occ sme lt gy-lt brn ptchy o stn/flor when cut, sme mod wk stmg-wk dif cut, sme NSOFC.  
30% SILTSTONE - gy gybrn occ lt brn occ gn, sft-frm, arg-occ sl sdy, sl calc, n Ø, gen NSOFC.  
55% SHALE - gy brn gybrn occ gn, sft-frm, sbblky-fis occ splty, gen calc, occ slty-sl sdy, NSOFC.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See instructions on  
reverse side)Form approved.  
Budget Bureau No. 42-R355.5

21

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other _____		5. LEASE DESIGNATION AND SERIAL NO. U-02651-A	
b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Energy Reserves Group, Inc.		7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR P.O. Box 3280 - Casper, Wyoming 82602		8. FARM OR LEASE NAME USA Pearl Broadhurst	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 581' FNL & 2,042' FEL (NW/NE)  At top prod. interval reported below  At total depth		9. WELL NO. 18	
14. PERMIT NO. 43-047-30935		DATE ISSUED 4-27-81	
15. DATE SPUDDED 5-22-81		16. DATE T.D. REACHED 6-3-81	
17. DATE COMPL. (Ready to prod.) 7-23-81		18. ELEVATIONS (DF, REB, RT, GR, ETC.)* GL 5,078'; KB 5,091'	
19. ELEV. CASINGHEAD -----		10. FIELD AND POOL, OR WILDCAT Walker Hollow	
20. TOTAL DEPTH, MD & TVD 5,426' K.B.		21. PLUG, BACK T.D., MD & TVD 5,420' K.B.	
22. IF MULTIPLE COMPL., HOW MANY* NA		23. INTERVALS DRILLED BY 0-TD	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*  Green River "K" zone 5,379'-5,409' K.B.		25. WAS DIRECTIONAL SURVEY MADE NO	
26. TYPE ELECTRIC AND OTHER LOGS RUN Dual Induction; Compensated Densilog/Neutron; Acoustilog		27. WAS WELL CORED NO	
29. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE
8-5/8" OD	24#	505' KB	12-1/4"
5-1/2" OD	14#	5,426' KB	7-7/8"
CEMENTING RECORD		AMOUNT PULLED	
365 sx 'G' w/2% CaCl <sub>2</sub> & 1/4# Flocele/sk.		-0-	
1000 sx HOWCO "Light" + Add & 500 sx 50-50 Pozmix + add		-0-	
29. LINER RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*
		None	
30. TUBING RECORD		PACKER SET (MD)	
SIZE	DEPTH SET (MD)	None	
2-7/8"	5,369' KB		
31. PERFORATION RECORD (Interval, size and number)			
5,379'-80', 5,393'-94', 5,401'-02' 5,406'-09' w/1 JSPF (10 perfs)			
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
5,379'-5,409'		BD w/500 gal 7½ HCl w/additives. Frac'd w/30,000 gal Super-K fluid w/35,000# 20-40 sand & 15,000# 10-20 sand.	
33. PRODUCTION			
DATE FIRST PRODUCTION 7-23-81		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Pumping 2-1/2" x 1-3/4" x 14' Rod Pump	
DATE OF TEST 7-30-81		WELL STATUS (Producing or shut-in) Producing	
HOURS TESTED 24	CHOKE SIZE -----	PROD'N. FOR TEST PERIOD -----	OIL—BBL. 86
FLOW. TUBING PRESS. -----	CASING PRESSURE -----	GAS—MCF. NA	WATER—BBL. 2
CALCULATED 24-HOUR RATE -----		GAS—MCF. NA	GAS-OIL RATIO NA
OIL—BBL. 86		WATER—BBL. 2	
OIL GRAVITY-API (CORR.) ± 28°			
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) VENTED DURING TEST			
35. LIST OF ATTACHMENTS DURRELL KARRIN			
SAMPLE DESCRIPTIONS			
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records			
SIGNED Bobby Patrick		TITLE Production Engineer - RMD	
DATE 8-5-81			

\*(See Instructions and Spaces for Additional Data on Reverse Side)

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29:** "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES			38. GEOLOGIC MARKERS			
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
NO DST'S				LOG TOPS		
				Utah	surface	
				Green River	2,807'	
				"G" zone	4,412'	
				"H" zone	4,630'	
				"I" zone	4,849'	
				"J" zone	5,163'	
				"K" zone	5,334'	
			TD	5,426'		



STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 5, 1982

Energy Reserves, Inc.  
Box 3280  
Casper, Wyoming 82602

Re: See attached

Gentlemen:

Our records indicate that you have not filed the monthly drilling reports for the months indicated above on the subject wells.

Rule C-22, General Rules and Regulations and Rules of Practice and Procedure, requires that said reports be filed on or before the sixteenth (16) day of the succeeding month. This report may be filed on Form OGC-1B, (U. S. Geological Survey Form 9-331) "Sundry Notices and Reports on Wells", or on company forms containing substantially the same information. We are enclosing forms for your convenience.

Your prompt attention to the above will be greatly appreciated.

Very truly yours.

DIVISION OF OIL, GAS AND MINING

Cari Furse  
Clerk Typist

Well No. Broadhurst #18  
Sec. 9, T. 7S, R. 23E  
Uintah County, Utah  
( July 1981- November 1981)

Well No. Broadhurst #19  
Sec. 9, T. 7S, R. 23E  
Uintah County, Utah  
( October 1981- November 1981)

Well No. Broadhurst #20  
Sec. 9, T. 7S, R. 23E  
Uintah County, Utah  
( October 1981- November 1981)

Well No. Broadhurst #11  
Sec. 10, T. 7S, R. 23E  
Uintah County, Utah  
( May 1981- November 1981)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

USA Pearl Broadhurst

9. WELL NO.

10. FIELD AND POOL, OR WILDCAT

Walker Hollow Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Section 9 T1S-R1E

12. COUNTY OR PARISH 13. STATE

Uintah

Utah

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED

JUN 03 1985

DIVISION OF OIL  
GAS & MINING

1. OIL WELL ☐ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR

P. O. Box 3280 Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)  
At surface

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other) Consolidate Tank Batteries

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Energy Reserves Group, Inc. is proposing to consolidate the five existing tank batteries to one central tank battery to be located at the USA Pearl Broadhurst #1 present tank battery site. The location of the central tank battery site and the additional flowlines are shown on the attached topo map. All of the additional flowlines required will be in existing pipeline routes and will be insulated surface lines, so there should not be any additional surface disturbances. The entire lease has already had archaeological clearance. The present #1 Broadhurst Tank Battery already has the required tank storage, additional heater treaters will have to be moved to the present #1 battery.

18. I hereby certify that the foregoing is true and correct

SIGNED

Bobby Patrick

TITLE

Petroleum Engineer

DATE 5-31-85

(This space for Federal or State office use)

APPROVED BY

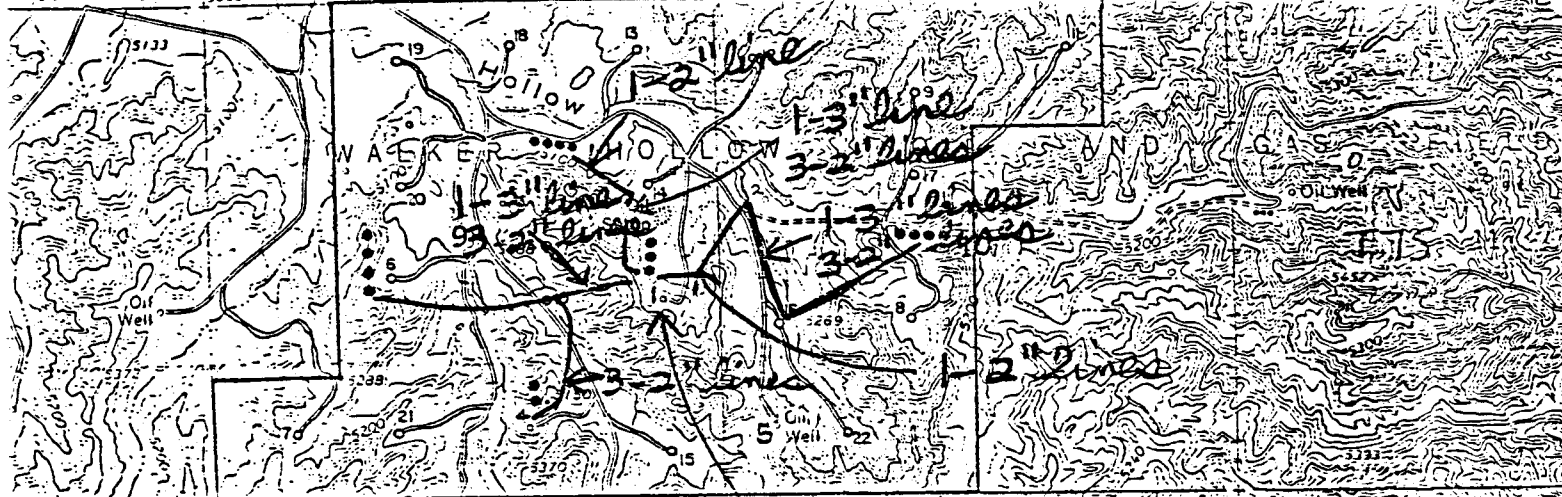
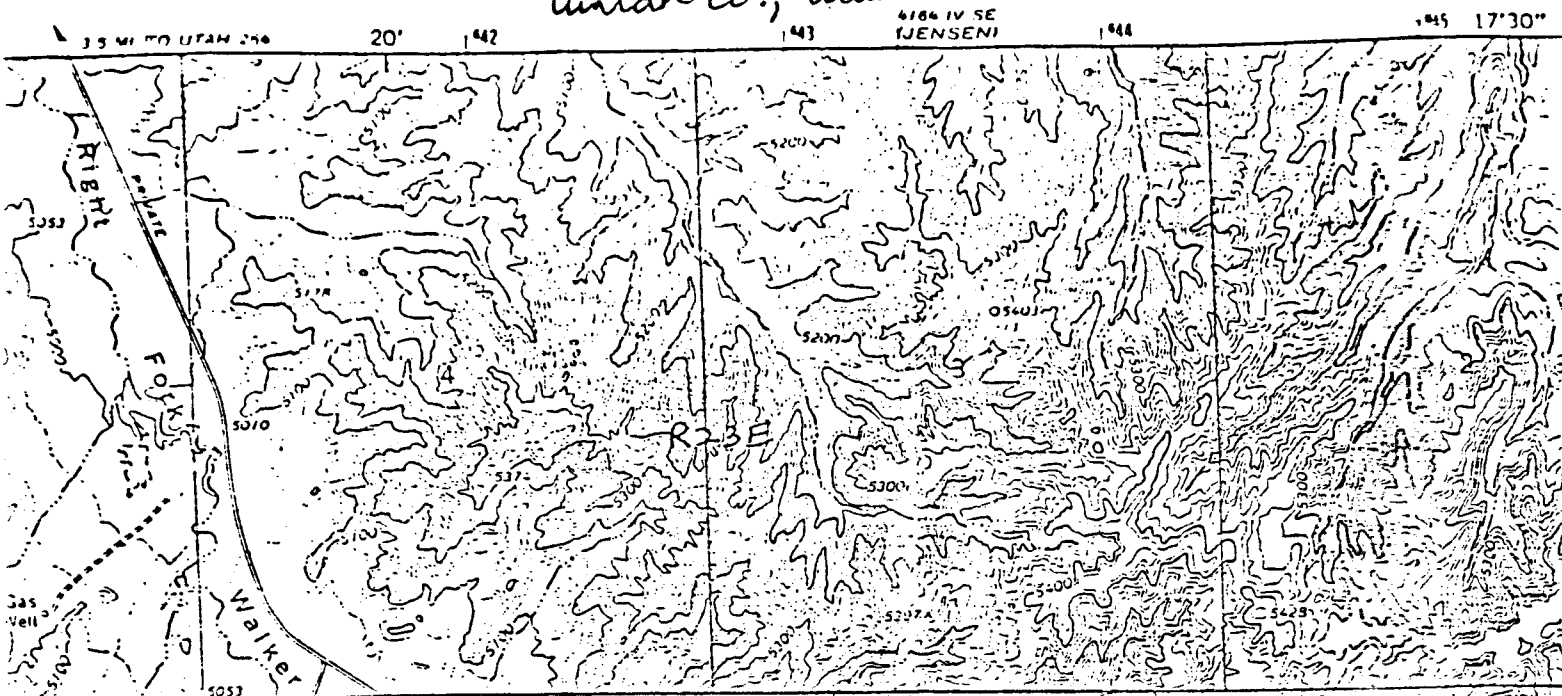
TITLE

DATE

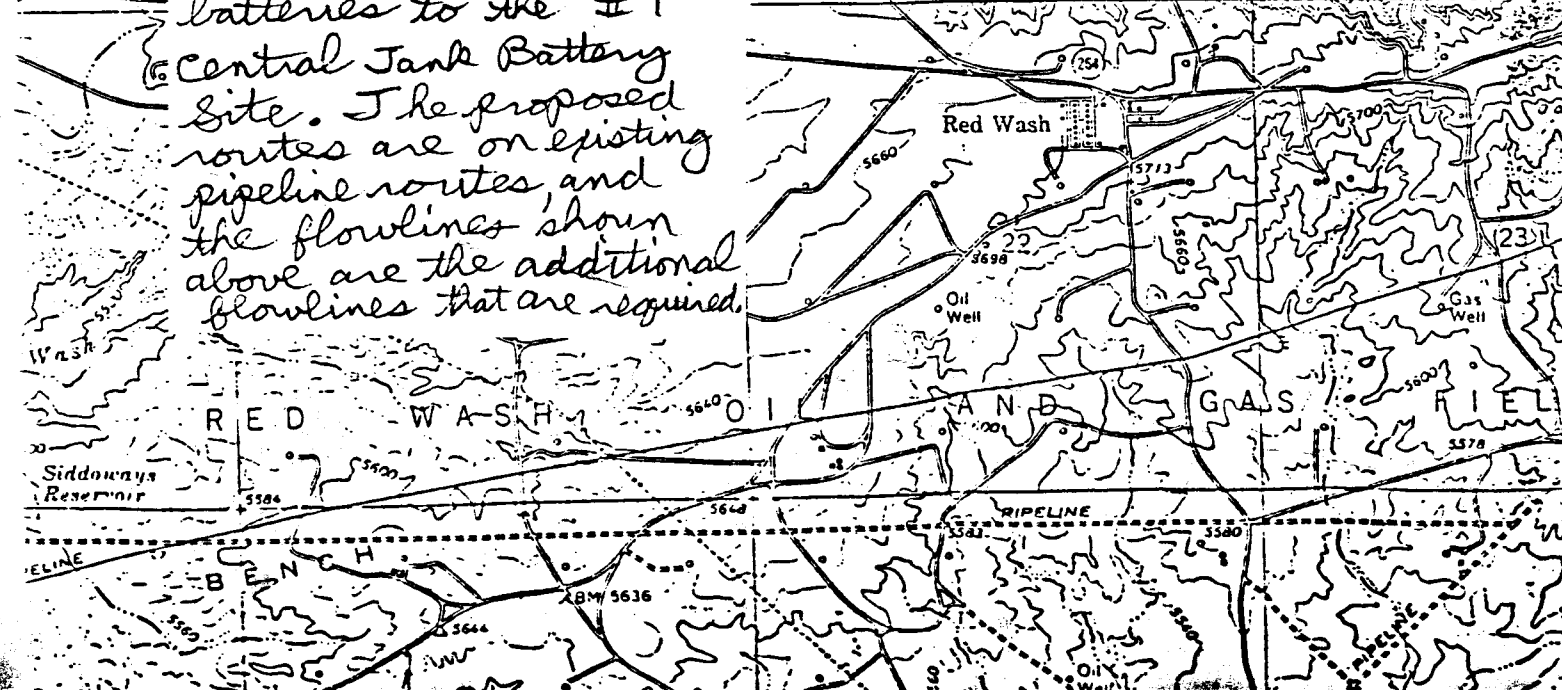
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

Energy Reserves Group  
 USA Pearl Broadhurst Lease  
 Walker Hollow Field  
 Uintah Co., Utah



The flowline routes shown above are the proposed routes from the existing batteries to the #1 Central Tank Battery Site. The proposed routes are on existing pipeline routes, and the flowlines shown above are the additional flowlines that are required.





RECEIVED

OCT 24 1985

DIVISION OF OIL  
GAS & MINING

913 North Foster Road  
Post Office Box 3280  
Casper, Wyoming 82602  
Telephone (307) 265-7331  
Fax (307) 266-1999



**BHP**  
**Petroleum**  
(Americas) Inc.

September 17, 1985

Division of Oil, Gas, and Mining  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

*Broadhurst #18*  
*75. 23E. 9 Uintah Co.*

Re: Corporate name change, ENERGY RESERVES GROUP, INC.

Gentlemen:

By authority of the enclosed copies and affidavit, please change your records to reflect the change of the name of ENERGY RESERVES GROUP, INC. to BHP Petroleum (Americas) Inc. for all former ERG operations in Utah.

Affected leases and numbers are as follows:

USA Pan American  
Federal Lease #81-06579  
(Utah entity #00220)

USA Pearl Broadhurst  
Federal Lease #U-02651-A  
(Utah entity #00225)

Roosevelt Unit - Wasatch  
Federal Lease #I-109-IND-5248 and I-109-IND-5242  
(Utah entity #00221)

If further information is needed, please contact me at the letterhead address or telephone number.

Thank you for your assistance.

BHP Petroleum (Americas) Inc.

Dale Belden  
District Clerk  
Rocky Mountain District

DB/mz

Enclosure

OCT 25 1985

Paul Broadhurst #18

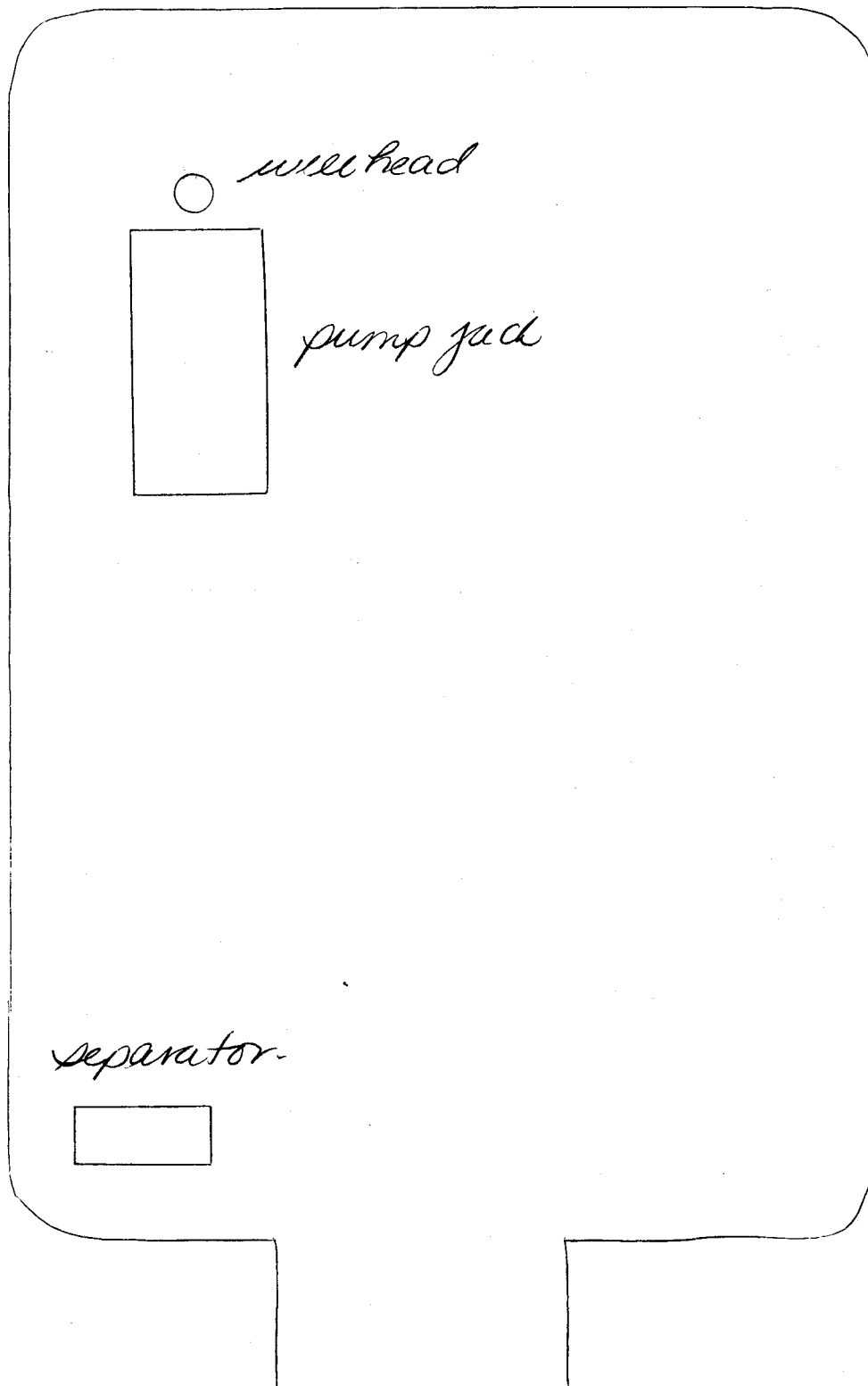
Sec 18, T8S, 23E

Hub

9/28/88

Sec 9 751235

43-047-30939



42,381 50 SHEETS 5 SQUARE  
42,382 100 SHEETS 5 SQUARE  
42,383 200 SHEETS 5 SQUARE



# GENERAL ATLANTIC

RESOURCES, INC.

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 14, 1993

RECEIVED

JUN 17 1993

State of Utah  
Oil & Gas Conservation Commission  
Three Triad Center, Suite 350  
355 West North Temple  
Salt Lake City, Utah 84180-1203

DIVISION OF  
OIL, GAS & MINING

RE: Change of Operator  
Sundry Notices and  
Reports on Wells


Gentlemen:

By Assignment dated April 30, 1993, effective January 1, 1993, General Atlantic Resources, Inc. ("GARI") purchased the interests of BHP Petroleum (Americas) Inc., Hamilton Brothers Oil Company, Hamilton Brothers Exploration Company and The Norwegian Oil Corporation (DNP-U.S.) collectively ("BHP"), in the properties referenced on the enclosed forms. BHP was the designated operator of said properties, resigning effective May 1, 1993. GARI has been acting as the operator in the interim while balloting was being conducted to determine the successor operator.

GARI has been named successor operator. Enclosed are executed forms for your review and approval reflecting this change. In the event you have questions or concerns relative to this transfer of operatorship, please contact Jim Lee Wolfe, Vice President of Operations or the undersigned at the letterhead address and/or call (303) 573-5100. Thank you for your timely attention in this matter.

Very truly yours,

GENERAL ATLANTIC RESOURCES, INC.

  
Lynn D. Becker, CPL  
Landman

Enclosures



STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> <small>(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)</small>		5. LEASE DESIGNATION & SERIAL NO. <b>SEE BELOW</b>	
1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		6. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>SEE BELOW</b>	
2. NAME OF OPERATOR <b>BHP Petroleum (Americas) Inc. (PREVIOUS OPERATOR)</b>		7. UNIT AGREEMENT NAME <b>SEE BELOW</b>	
3. ADDRESS OF OPERATOR <b>5847 San Felipe, Suite 3600, Houston, Texas 77057</b>		8. FARM OR LEASE NAME <b>SEE ATTACHED</b>	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface <b>Sections 9,10,13,18,19,20,21,23,25,26,27,28</b> At proposed prod. zone		9. WELL NO. <b>SEE ATTACHED</b>	
10. FIELD AND POOL, OR WILDCAT		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA	
14. API NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY <b>Uintah</b>	13. STATE <b>Utah</b>

16.

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <b>CHANGE OF OPERATOR</b> <input checked="" type="checkbox"/>	

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

APPROX. DATE WORK WILL START \_\_\_\_\_

DATE OF COMPLETION **5/01/93**

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

\* Must be accompanied by a cement verification report.

EFFECTIVE DATE: January 1, 1993.

NEW OPERATOR: General Atlantic Resources, Inc.

ADDRESS: 410 17th Street, Suite 1400, Denver, Colorado 80202

LEASE: USA Pearl Broadhurst  
 USA Pan American  
 Roosevelt Unit Wasatch

LEASE #: UTU02651A  
 UTS1065759  
 892000886A

RECEIVED

JUN 17 1993

DIVISION OF  
OIL GAS & MINING

Attached is a list of the wells which make up the above leases along with their respective API numbers. This method of ownership change was suggested by Lisha Romero, Division of Oil, Gas and Mining, Salt Lake City, Utah.

18. I hereby certify that the foregoing is true and correct

SIGNED

*Carl Kelle*

TITLE

*Regulatory Off. Rep.*

DATE

*4/27/93*

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

<u>LEASE</u>	<u>WELL#</u>	<u>API NUMBER</u>
USA Pearl Broadhurst	1 — Sec 9 T7S R22E	43-047-15692
" " "	2 — 10	43-047-15693
" " "	4 — 9	43-047-15694
" " "	5 — 10	43-047-15695
" " "	6 — 9	43-047-30705
" " "	7 — 9	43-047-30730
" " "	8 — 10	43-047-30696
" " "	9 — 10	43-047-30787
" " "	10 — 9	43-047-30839
" " "	11 — 11	43-047-30840
" " "	12 — 10	43-047-30841
" " "	13 — 9	43-047-30842
" " "	14 — 9	43-047-30904
" " "	15 — 9	43-047-30901
" " "	16 — 10	43-047-30903
" " "	17 — 10	43-047-30905
" " "	18 — 9	43-047-30939
" " "	19 — 9	43-047-30940
" " "	20 — 9	43-047-30941
" " "	21 — 9	43-047-30942
" " "	22 — 10	43-047-31025
USA Pan American	1 Sec 23 T5S R 22E	43-047-15682
" " "	2 — 26	43-047-15683
" " "	3 — 26	43-047-15684
" " "	4 — 22	43-047-15685
" " "	5 — 26	43-047-15686
" " "	6 — 26	43-047-15687
" " "	7 — 25	43-047-15688
" " "	8 — 22	43-047-15689
" " "	9 — 27	43-047-15690
" " "	10 — 22	43-047-15691
Roosevelt Unit Wasatch	5W — Sec 20 T1S 1E	43-047-31254
" " "	6 — 20	43-047-31366
" " "	7 — 19	43-047-31402
" " "	9W — 28	43-047-31445
" " "	10W — 21	43-047-31446
" " "	C11 — 12	43-047-31500
" " "	Mary 278 13	43-047-31845

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or recomplete a well in a Federal reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.

SUBMIT IN TRIPLICATE

SEP 20 1993

Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other

DIVISION OF

Name of Operator  
General Atlantic Resources, Inc.

OIL, GAS & MINING

Address and Telephone No.  
410 17th Street, Suite 1400, Denver, Colorado 80202 (303) 573-5100

Location of Well (Footage, Sec., T., R., M., or Survey Description)

(See attached exhibit A)  
Sections 9 and 10, Township 7 South-Range 23 East

5. Lease Designation and Serial No.

USA U-02651-A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No. 18 (see att. Pearl Broadhurst exhibit)

9. API Well No. 43-047-30939 (see att. exhibit A)

10. Field and Pool, or Exploratory Area

11. County or Parish, State

Uintah County, Utah

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent  
☒ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other change of operator  
☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

On May 1, 1993 General Atlantic Resources, Inc. took over operations of the referenced well from BHP Petroleum (Americas) Inc.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by General Atlantic Resources, Inc. under their nationwide bond, BLM bond number C01023. They will be responsible for compliance under the lease terms and conditions for that portion of the lease associated with this notice.

VERNAL DIST.

ENG. 2/19/93

GEOL. \_\_\_\_\_

E.S. \_\_\_\_\_

PET. \_\_\_\_\_

A.M. \_\_\_\_\_

14. I hereby certify that the foregoing is true and correct

Lynn D. Becker  
Landman

Date August 20, 1993

Signed \_\_\_\_\_

Title \_\_\_\_\_

(This space for Endorsement or State Office use)

ASSISTANT DISTRICT  
MANAGER MINERALS

SEP 10 1993

Approved by \_\_\_\_\_  
Conditions of approval, if any:

1	<del>DEC</del> /GIL
2	<del>DPS</del> /SJ
3	<del>VLC</del> 8-FILE
4	<del>R</del> FE
5	<del>PL</del>
6	PL

Attach all documentation received by the division regarding this change.  
Initial each listed item when completed. Write N/A if item is not applicable.

- ☒ Change of Operator (well sold)      ☐ Designation of Agent  
☐ Designation of Operator      ☐ Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 5-1-93)

TO (new operator) <u>GENERAL ATLANTIC RES INC</u>	FROM (former operator) <u>BHP PETROLEUM/AMERICAS INC</u>
(address) <u>410 17TH ST #1400</u>	(address) <u>5847 SAN FELIPE #3600</u>
<u>DENVER, CO 80202</u>	<u>HOUSTON, TX 77057</u>
<u>LYNN BECKER, LANDMAN</u>	<u>CARL KOLBE (713) 780-5301</u>
phone <u>(303) 573-5100</u>	phone <u>(713) 780-5245</u>
account no. <u>N 0910</u>	account no. <u>N0390</u>

Well(s) (attach additional page if needed):

Name: <u>BROADHURST #16/GRRV</u>	API: <u>43-047-30903</u>	Entity: <u>225</u>	Sec <u>10</u> Twp <u>7S</u> Rng <u>23E</u>	Lease Type: <u>U02651A</u>
Name: <u>BROADHURST #17/GRRV</u>	API: <u>43-047-30905</u>	Entity: <u>225</u>	Sec <u>10</u> Twp <u>7S</u> Rng <u>23E</u>	Lease Type: <u>"</u>
Name: <u>BROADHURST #18/GRRV</u>	API: <u>43-047-30939</u>	Entity: <u>225</u>	Sec <u>9</u> Twp <u>7S</u> Rng <u>23E</u>	Lease Type: <u>"</u>
Name: <u>PEARL BH #19/GRRV</u>	API: <u>43-047-30940</u>	Entity: <u>225</u>	Sec <u>9</u> Twp <u>7S</u> Rng <u>23E</u>	Lease Type: <u>"</u>
Name: <u>BROADHURST #20/GRRV</u>	API: <u>43-047-30941</u>	Entity: <u>225</u>	Sec <u>9</u> Twp <u>7S</u> Rng <u>23E</u>	Lease Type: <u>"</u>
Name: <u>BROADHURST #21/GRRV</u>	API: <u>43-047-30942</u>	Entity: <u>225</u>	Sec <u>9</u> Twp <u>7S</u> Rng <u>23E</u>	Lease Type: <u>"</u>
Name: <u>PEARL BH #22/GRRV</u>	API: <u>43-047-31025</u>	Entity: <u>225</u>	Sec <u>10</u> Twp <u>7S</u> Rng <u>23E</u>	Lease Type: <u>"</u>

#### OPERATOR CHANGE DOCUMENTATION

- See 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (Rec'd 6-17-93)
- See 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (Rec'd 6-17-93)
- See 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no)      If yes, show company file number: #92898.
- See 4. (For Indian and Federal Wells ONLY) The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of Federal and Indian well operator changes should take place prior to completion of steps 5 through 9 below.
- See 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (9-28-93)
- See 6. Cardex file has been updated for each well listed above. (9-28-93)
- See 7. Well file labels have been updated for each well listed above. (9-28-93)
- See 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (9-28-93)
- See 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

## ENTITY REVIEW

- LC 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) \_\_\_\_ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).
- N/A 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

## BOND VERIFICATION (Fee wells only)

- LC 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.
- N/A 2. A copy of this form has been placed in the new and former operators' bond files.
- \_\_\_\_ 3. The former operator has requested a release of liability from their bond (yes/no) \_\_\_\_.  
Today's date \_\_\_\_\_ 19\_\_\_\_. If yes, division response was made by letter dated \_\_\_\_\_ 19\_\_\_\_.

## LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

- LC 1. (Rule R615-2-10) The former operator/lessee of any fee lease well listed above has been notified by letter dated \_\_\_\_\_ 19\_\_\_\_, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.
- N/A 2. Copies of documents have been sent to State Lands for changes involving State leases.

## MICROFILMING

- LC 1. All attachments to this form have been microfilmed. Date: 10-12 19 93.

## FILED

- LC 1. Copies of all attachments to this form have been filed in each well file.
- LC 2. The original of this form and the original attachments have been filed in the Operator Change file.

## COMMENTS

930920 Btm/Leaseholder Approved 9-10-93. (Lease 107112651-A only) Other leases/wells will be handled on separate change.



**STATE OF UTAH**  
**DIVISION OF OIL, GAS AND MINING**  
 355 West North Temple, 3 Triad, Suite 350, Salt Lake City, UT 84180-1203

Page 2 of 2

## MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

APRIL LAHNUM  
 GENERAL ATLANTIC RES INC  
 410 17TH ST STE 1400  
 DENVER CO 80202

UTAH ACCOUNT NUMBER: N0910REPORT PERIOD (MONTH/YEAR): 12 / 94AMENDED REPORT ☐ (Highlight Changes)

Well Name			Producing Zone	Well Status	Days Oper	Production Volumes		
API Number	Entity	Location				OIL(BBL)	GAS(MCF)	WATER(BBL)
✓ BROADHURST #17 4304730905	00225	07S 23E 10	GRRV			462651-A		
✓ BROADHURST #18 4304730939	00225	07S 23E 9	GRRV			"		
✓ PEARL BROADHURST 19 4304730940	00225	07S 23E 9	GRRV			"		
✓ BROADHURST #20 4304730941	00225	07S 23E 9	GRRV			"		
✓ BROADHURST #21 4304730942	00225	07S 23E 9	GRRV			"		
✓ PEARL BROADHURST 22 04731025	00225	07S 23E 10	GRRV			"		
USA PRL BROADHURST #2 43-047-15693	00225	7S 23E 10	GRRV - W1W			"		
USA PEARL BROADHURST 5 43-047-15695	09141	7S 23E 10	WSTC - W1W			"		
"			GRRV - TAZ					
<b>TOTALS</b>								

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

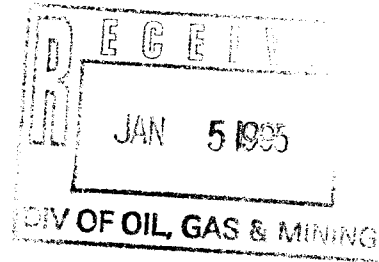
hereby certify that this report is true and complete to the best of my knowledge.

Date: \_\_\_\_\_

Name and Signature: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

UMC Petroleum Corporation



January 23, 1995

State of Utah  
Division of Oil, Gas and Mining  
3 Triad Center, #350  
Salt Lake City, Utah 84180-1203

Re: Change of Operator

Gentlemen,

On November 15, 1994, General Atlantic Resources, Inc. merged into UMC Petroleum Corporation. Enclosed please find a copy of the certificate of merger as well as State of Utah Form 9 with an attachment listing all wells and their locations.

UMC Petroleum Corporation will be operating these wells effective January 1, 1995. If there are any questions or you require additional information, please contact the undersigned at (303) 573-4732.

Sincerely,

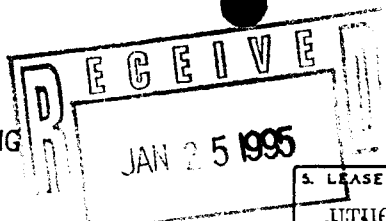
UMC PETROLEUM CORPORATION

A handwritten signature in cursive script, appearing to read "April J.M. Lahnum".

April J.M. Lahnum  
Production Technician

ajml

{LETTERS/utah}

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION &amp; SERIAL NO.

UT02651A

6. ALLOTTEE OR TRIBE NAME

## SUNDRY NOTICES AND REPORTS ON WELLS - OIL, GAS &amp; MINERAL

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		7. UNIT AGREEMENT NAME	
2. NAME OF OPERATOR UMC Petroleum Corporation		8. FARM OR LEASE NAME USA Pearl Broadhurst	
3. ADDRESS OF OPERATOR 410 17th Street, Suite 1400, Denver, CO 80202		9. WELL NO. (see attached exhibit A)	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface (see attached exhibit A) At proposed prod. zone Sections 9 and 10, T7S, R23E		10. FIELD AND POOL, OR WILDCAT Green River	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 9 & 10, T7S, R23E	
14. API NO. (see att. exhibit A)	15. ELEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY Uintah	13. STATE UT

## 16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) Change of Operator <input checked="" type="checkbox"/>	

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

APPROX. DATE WORK WILL START \_\_\_\_\_

DATE OF COMPLETION \_\_\_\_\_

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

\* Must be accompanied by a cement verification report.

On November 15, 1994, General Atlantic Resources, Inc. merged into UMC Petroleum Corporation. (See enclosed certificate of merger.)

UMC Petroleum Corporation will begin operating the referenced lease on January 1, 1995.

Bond coverage for lease activities is being provided by UMC Petroleum Corporation under their nationwide bond, BLM bond number B01843.

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE

April J.M. Lahnum  
Production Technician

DATE January 20, 1995

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

Utah Production	PRAMS I.D.	Company Identification #	State I.D.#	API Number	Lease Name/Number	Formation	Qtr/Qtr	Sec.	Twp.	Rge	County	Operator
WALKER HOLLOW Field												
PEARL BROADHURST #1	PEARL1	UT-017-01-001	00225	43-047-15692-00	UTU02651A	GREEN RIVER	NESE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #10	PEARL10	UT-017-01-009	00225	43-047-30839-00	UTU02651A	GREEN RIVER	NWSW	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #11	PEARL11	UT-017-01-010	00225	43-047-30840-00	UTU02651A	GREEN RIVER	NWNE	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #12	PEARL12	UT-017-01-011	00225	43-047-30841-00	UTU02651A	GREEN RIVER	NWNW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #13	PEARL13	UT-017-01-012	00225	43-047-30842-00	UTU02651A	GREEN RIVER	NENE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #14	PEARL14	UT-017-01-013	00225	43-047-30904-00	UTU02651A	GREEN RIVER	SENE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #15	PEARL15	UT-017-01-014	00225	43-047-30901-00	UTU02651A	GREEN RIVER	SESE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #16	PEARL16	UT-017-01-015	00225	43-047-30903-00	UTU02651A	GREEN RIVER	NWSW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #17	PEARL17	UT-017-01-016	00225	43-047-30905-00	UTU02651A	GREEN RIVER	SENW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #18	PEARL18	UT-017-01-017	00225	43-047-30939-00	UTU02651A	GREEN RIVER	NWNE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #19	PEARL19	UT-017-01-018	00225	43-047-30940-00	UTU02651A	GREEN RIVER	NWNE	9	7S	23E	UINTAH	GARI-BHP
✓ PEARL BROADHURST #2 (w/w)	PEARL2	UT-017-01-002	00225	43-047-15693-00	UTU02651A	GREEN RIVER	SWNW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #20	PEARL20	UT-017-01-019	00225	43-047-30941-00	UTU02651A	GREEN RIVER	SESW	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #21	PEARL21	UT-017-01-020	00225	43-047-30942-00	UTU02651A	GREEN RIVER	SESW	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #22	PEARL22	UT-017-01-021	00225	43-047-31025-00	UTU02651A	GREEN RIVER	SESW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #4	PEARL4	UT-017-01-003	00225	43-047-15694-00	UTU02651A	GREEN RIVER	SWSE	9	7S	23E	UINTAH	GARI-BHP
✓ PEARL BROADHURST #5 (w/w)	PEARL5A	UT-017-01-004	00225	43-047-15695-00	UTU02651A	GREEN RIVER	SWSW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #6	PEARL6	UT-017-01-005	00225	43-047-30705-00	UTU02651A	GREEN RIVER	NESW	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #7	PEARL7	UT-017-01-006	00225	43-047-30730-00	UTU02651A	GREEN RIVER	SWSW	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #8	PEARL8	UT-017-01-007	00225	43-047-30696-00	UTU02651A	GREEN RIVER	NESW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #9	PEARL9	UT-017-01-008	00225	43-047-30787-00	UTU02651A	GREEN RIVER	NENW	10	7S	23E	UINTAH	GARI-BHP


*State of Delaware*  
*Office of the Secretary of State* PAGE 1

---

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"GENERAL ATLANTIC RESOURCES, INC.", A DELAWARE CORPORATION,  
WITH AND INTO "UMC PETROLEUM CORPORATION" UNDER THE NAME OF  
"UMC PETROLEUM CORPORATION", A CORPORATION ORGANIZED AND  
EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED  
AND FILED IN THIS OFFICE THE FIFTEENTH DAY OF NOVEMBER, A.D.  
1994, AT 11:10 O'CLOCK A.M.



  
\_\_\_\_\_  
Edward J. Freel, Secretary of State

AUTHENTICATION:

2257442 8100M

DATE: 7306080

944221473

11-17-94

**CERTIFICATE OF MERGER**

**OF**

**GENERAL ATLANTIC RESOURCES, INC.,  
A DELAWARE CORPORATION**

**AND**

**UMC PETROLEUM CORPORATION,  
A DELAWARE CORPORATION**

UMC Petroleum Corporation, a Delaware corporation, certifies that:

1. Constituent Corporations. The constituent business corporations participating in the merger herein certified are:

(a) General Atlantic Resources, Inc., which is incorporated under the laws of the State of Delaware; and

(b) UMC Petroleum Corporation, which is incorporated under the laws of the State of Delaware.

2. Approval of Agreement and Plan of Merger. An Agreement and Plan of Merger dated as of August 9, 1994 ("Agreement and Plan of Merger"), has been approved, adopted, certified, executed and acknowledged by each of the aforesaid constituent corporations in accordance with the provisions of Section 251 of the General Corporation Law of the State of Delaware.

3. Surviving Corporation. The surviving corporation (the "Surviving Corporation") in the merger herein certified is UMC Petroleum Corporation, a Delaware corporation.

4. Certificate of Incorporation. The certificate of incorporation of UMC Petroleum Corporation, a Delaware corporation, shall be the certificate of incorporation of the Surviving Corporation, except that Article 4 thereof is hereby amended and restated in its entirety as follows:

1. Authorized Shares. The total authorized capital stock of the corporation shall consist of Common Stock. The aggregate number of shares of Common Stock that the corporation shall have authority to issue is three thousand (3,000) with the par value of one cent (\$.01) per share.

5. Agreement and Plan of Merger on File. The executed Agreement and Plan of Merger is on file at the principal place of business of the Surviving Corporation, the address

of which as of the date hereof is as follows:

1201 Louisiana Street  
Suite 1400  
Houston, Texas 77002

6. Copies of Agreement and Plan of Merger. A copy of the Agreement and Plan of Merger will be furnished by the Surviving Corporation, on request and without cost, to any stockholder of any of the aforesaid constituent corporations.

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Merger on behalf of UMC Petroleum Corporation on this 15th day of November, 1994.


UMC PETROLEUM CORPORATION, a Delaware  
corporation

By:  
Name:  
Title:

  
John B. Brock  
President and Chief Executive Officer

Attest:

By:  
Name:  
Title:

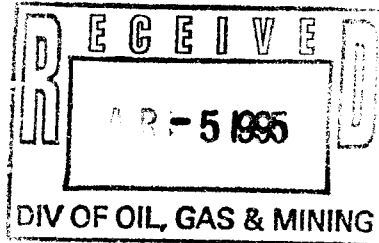
  
Marya Ingram  
Corporate Secretary

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:  
3100  
U-02651A et al  
(UT-923)



MAR 24 1995

### NOTICE

UMC Petroleum Corporation	:	Oil and Gas
1201 Louisiana, Suite 1400	:	U-02651A, U-51411,
Houston, Texas 77002-5603	:	U-55626, U-58530

### Merger Recognized

Acceptable evidence has been filed in this office concerning the merger of General Atlantic Resources, Inc. into UMC Petroleum Corporation with UMC Petroleum Corporation being the surviving entity.

For our purposes, the merger is recognized effective November 15, 1994.

The oil and gas lease files identified above have been noted as to the merger. We are notifying the Minerals Management Service and all applicable Bureau of Land Management offices of the change by a copy of this notice.

A rider to UMC's bond (BLM Bond No. NM1773) assuming the liability accrued under General's bond (BLM Bond No. CO1023) was accepted effective March 7, 1995, the date the rider was filed.

**/s/ ROBERT LOPEZ**

Chief, Branch of Mineral  
Leasing Adjudication

bc: Vernal District Office  
Moab District Office  
MMS—Data Management Division, MS 3113, P.O. Box 5860, Denver, CO 80217  
UT-922 (Teresa Thompson)  
Lisha Cordova, State of Utah, Division of Oil, Gas, and Mining, 3 Triad Center,  
Suite 350, Salt Lake City, Utah 84189-1204



Form 3160-5  
(June 1990)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

## SUBMIT IN TRIPLICATE

## 1. Type of Well

☐ Oil Well ☐ Gas Well ☐ Other

## 2. Name of Operator

UMC Petroleum Corporation

## 3. Address and Telephone No.

410 17th Street, Suite 1400, Denver, CO 80202 (303) 573-5100

## 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

(see attachment)

## 5. Lease Designation and Serial No.

## 6. If Indian, Allottee or Tribe Name

## 7. If Unit or CA, Agreement Designation

UTU02651A

## 8. Well Name and No.

Pearl Broadhurst

## 9. API Well No.

(see attachment)

## 10. Field and Pool, or Exploratory Area

Walker Hollow

## 11. County or Parish, State

Uintah, UT

## 12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

## TYPE OF SUBMISSION

☐ Notice of Intent☒ Subsequent Report☐ Final Abandonment Notice

## TYPE OF ACTION

☐ Abandonment☐ Recompletion☐ Plugging Back☐ Casing Repair☐ Altering Casing☒ Other Change of Operator☐ Change of Plans☐ New Construction☐ Non-Routine Fracturing☐ Water Shut-Off☐ Conversion to Injection☐ Dispose Water

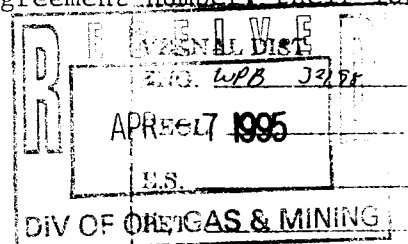
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

## 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

On November 15, 1994, General Atlantic Resources, Inc. merged with UMC Petroleum Corporation  
(See enclosed certificate of merger.)

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by UMC Petroleum Corporation under their nationwide bond, B01843. They will be responsible for compliance under the lease terms and conditions for that portion of the lease associated with this notice.

Attachment lists all wells associated with the referenced agreement number, their location, and API well numbers.



## 14. I hereby certify that the foregoing is true and correct

Signed

April J.M. Lahnum

Title Production Technician

A.M.

Date March 15, 1995

(This space for Federal or State official use)

Approved by

Title

Date

Conditions of approval, if any:

APR 06 1995

	State I.D.#	API Number	Lease Name/Number	Formation	Qtr/Qtr	Sec.	Twp.	Rge	County
Utah Production									
<u>WALKER HOLLOW Field</u>									
PEARL BROADHURST #1	00225	43-047-15692-00	UTU02651A	GREEN RIVER	NESE	9	7S	23E	UINTAH
PEARL BROADHURST #10	00225	43-047-30839-00	UTU02651A	GREEN RIVER	NWSW	9	7S	23E	UINTAH
PEARL BROADHURST #11	00225	43-047-30840-00	UTU02651A	GREEN RIVER	NWNE	10	7S	23E	UINTAH
PEARL BROADHURST #12	00225	43-047-30841-00	UTU02651A	GREEN RIVER	NWNW	10	7S	23E	UINTAH
PEARL BROADHURST #13	00225	43-047-30842-00	UTU02651A	GREEN RIVER	NENE	9	7S	23E	UINTAH
PEARL BROADHURST #14	00225	43-047-30904-00	UTU02651A	GREEN RIVER	SENE	9	7S	23E	UINTAH
PEARL BROADHURST #15	00225	43-047-30901-00	UTU02651A	GREEN RIVER	SESE	9	7S	23E	UINTAH
PEARL BROADHURST #16	00225	43-047-30903-00	UTU02651A	GREEN RIVER	NWSW	10	7S	23E	UINTAH
PEARL BROADHURST #17	00225	43-047-30905-00	UTU02651A	GREEN RIVER	SENE	10	7S	23E	UINTAH
PEARL BROADHURST #18	00225	43-047-30939-00	UTU02651A	GREEN RIVER	NWNE	9	7S	23E	UINTAH
PEARL BROADHURST #19	00225	43-047-30940-00	UTU02651A	GREEN RIVER	NWNE	9	7S	23E	UINTAH
PEARL BROADHURST #2	00225	43-047-15693-00	UTU02651A	GREEN RIVER	SWNW	10	7S	23E	UINTAH
PEARL BROADHURST #20	00225	43-047-30941-00	UTU02651A	GREEN RIVER	SESW	9	7S	23E	UINTAH
PEARL BROADHURST #21	00225	43-047-30942-00	UTU02651A	GREEN RIVER	SESW	9	7S	23E	UINTAH
PEARL BROADHURST #22	00225	43-047-31025-00	UTU02651A	GREEN RIVER	SESW	10	7S	23E	UINTAH
PEARL BROADHURST #4	00225	43-047-15694-00	UTU02651A	GREEN RIVER	SWSE	9	7S	23E	UINTAH
PEARL BROADHURST #5	00225	43-047-15695-00	UTU02651A	GREEN RIVER	SWSW	10	7S	23E	UINTAH
PEARL BROADHURST #6	00225	43-047-30705-00	UTU02651A	GREEN RIVER	NESW	9	7S	23E	UINTAH
PEARL BROADHURST #7	00225	43-047-30730-00	UTU02651A	GREEN RIVER	SWSW	9	7S	23E	UINTAH
PEARL BROADHURST #8	00225	43-047-30696-00	UTU02651A	GREEN RIVER	NESW	10	7S	23E	UINTAH
PEARL BROADHURST #9	00225	43-047-30787-00	UTU02651A	GREEN RIVER	NENW	10	7S	23E	UINTAH

Division of Oil, Gas and Mining  
OPERATOR CHANGE WORKSHEET

Attach all documentation received by the division regarding this change.  
Initial each listed item when completed. Write N/A if item is not applicable.

Routing:

1	<del>DEC</del> GIL
2	LWP 7-SJ ✓
3	<del>DTA</del> 8-PL
4	VLC 9-FILE
5	RJF ✓
6	LWP

☒ Change of Operator (MERGER) ☐ Designation of Agent  
☐ Designation of Operator ☐ Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 11-15-94)

TO (new operator) UMC PETROLEUM CORPORATION  
(address) 410 17TH ST STE 1400  
DENVER CO 80202  
APRIL LAHNUM (915)683-3003  
phone (303) 573-5100  
account no. N9215

FROM (former operator) GENERAL ATLANTIC RES INC  
(address) 410 17TH ST STE 1400  
DENVER CO 80202  
APRIL LAHNUM  
phone (303) 573-5100  
account no. N 0910

Well(s) (attach additional page if needed):

Name: <b>**SEE ATTACHED**</b>	API: <u>43099-8937</u>	Entity: _____	Sec. _____	Twp. _____	Rng. _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp. _____	Rng. _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp. _____	Rng. _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp. _____	Rng. _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp. _____	Rng. _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp. _____	Rng. _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp. _____	Rng. _____	Lease Type: _____

OPERATOR CHANGE DOCUMENTATION

- 1 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (filed 1-25-95)
- 2 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (filed 1-25-95)
- 3 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) \_\_\_\_\_ If yes, show company file number: #152682. (filed 6/91)
- 4 4. (For Indian and Federal Wells ONLY) The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of **Federal and Indian** well operator changes should take place prior to completion of steps 5 through 9 below.
- 5 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (4-6-95)
- 6 6. Cardex file has been updated for each well listed above. 4-18-95
- 7 7. Well file labels have been updated for each well listed above. 4-18-95
- 8 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (4-6-95)
- 9 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

### ENTITY REVIEW

- ec 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes no) \_\_\_\_ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).
- NA 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

### BOND VERIFICATION (Fee wells only)

- NA 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.
- \_\_\_\_ 2. A copy of this form has been placed in the new and former operators' bond files.
- \_\_\_\_ 3. The former operator has requested a release of liability from their bond (yes/no) \_\_\_\_.  
Today's date \_\_\_\_\_ 19\_\_\_\_. If yes, division response was made by letter dated \_\_\_\_\_ 19\_\_\_\_.

### LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

- NA 1. (Rule R615-2-10) The former operator/lessee of any fee lease well listed above has been notified by letter dated \_\_\_\_\_ 19\_\_\_\_, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.
- NA 2. Copies of documents have been sent to State Lands for changes involving State leases.

### FILMING

- ✓ 1. All attachments to this form have been microfilmed. Date: May 2 1995.

### FILING

- \_\_\_\_ 1. Copies of all attachments to this form have been filed in each well file.
- \_\_\_\_ 2. The original of this form and the original attachments have been filed in the Operator Change file.

### COMMENTS

950131 Reg. LIC F5 (27 wells).

9502 Trust Lands Admin. "accepted merger".

950324 Btm/54 Aprv. eff. 11-15-94.

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

LORETTA A MURPHY  
UMC PETROLEUM CORPORATION  
PO BOX 549  
NEWCASTLE WY 82701-0549

UTAH ACCOUNT NUMBER: N9215

REPORT PERIOD (MONTH/YEAR): 6 / 98

AMENDED REPORT ☐ (Highlight Changes)

Well Name			Producing Zone	Well Status	Days Oper	Production Volumes		
API Number	Entity	Location				OIL(BBL)	GAS(MCF)	WATER(BBL)
USA PEARL BROADHURST #1								
4304715692	00225	07S 23E 9	GRRV			U-02651-A		
USA PEARL BROADHURST #4								
4304715694	00225	07S 23E 9	GRRV			U-02651-A		
BROADHURST #8						"		
4304730696	00225	07S 23E 10	GRRV			"		
BROADHURST #6						"		
4304730705	00225	07S 23E 9	GRRV			"		
BROADHURST #7						"		
4304730730	00225	07S 23E 9	GRRV			"		
BROADHURST #9						U-02651		
4304730787	00225	07S 23E 10	GRRV			U-02651-A		
PEARL BROADHURST 10						"		
4304730839	00225	07S 23E 9	GRRV			"		
PEARL BROADHURST 11						"		
4304730840	00225	07S 23E 10	GRRV			"		
PEARL BROADHURST #12						"		
4304730841	00225	07S 23E 10	GRRV			"		
PEARL BROADHURST #13						"		
4304730842	00225	07S 23E 9	GRRV			"		
BROADHURST #15						"		
4304730901	00225	07S 23E 9	GRRV			"		
BROADHURST #16						"		
4304730903	00225	07S 23E 10	GRRV			"		
BROADHURST #17						"		
4304730905	00225	07S 23E 10	GRRV			"		
TOTALS								

COMMENTS:

hereby certify that this report is true and complete to the best of my knowledge. Date:

Name and Signature: Telephone Number:

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

LORETTA A MURPHY  
UMC PETROLEUM CORPORATION  
PO BOX 549  
NEWCASTLE WY 82701-0549

UTAH ACCOUNT NUMBER: N9215

REPORT PERIOD (MONTH/YEAR): 6 / 98

AMENDED REPORT ☐ (Highlight Changes)

Well Name			Producing Zone	Well Status	Days Oper	Production Volumes		
API Number	Entry	Location				OIL(BBL)	GAS(MCF)	WATER(BBL)
BROADHURST #18								
4304730939	00225	07S 23E 9	GRRV			4-02651-A		
PEARL BROADHURST 19								
4304730940	00225	07S 23E 9	GRRV			"		
BROADHURST #20								
4304730941	00225	07S 23E 9	GRRV			"		
BROADHURST #21								
4304730942	00225	07S 23E 9	GRRV			"		
PEARL BROADHURST 22								
4304731025	00225	07S 23E 10	GRRV			"		
TOTALS								

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

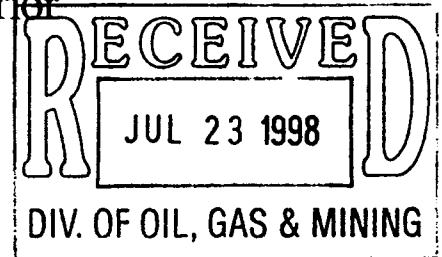
hereby certify that this report is true and complete to the best of my knowledge. Date: \_\_\_\_\_  
Name and Signature: \_\_\_\_\_ Telephone Number: \_\_\_\_\_



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155



In Reply Refer To:

3100

U-02651A et al

(UT-932)

JUL 21 1998

### NOTICE

Ocean Energy, Inc.  
1201 Louisiana, Suite 1400  
Houston, TX 77002-5603  
(713) 654-9110

: Oil and Gas: U-02651A, #  
: U-09712A, U-020691A, U-8894A,  
: U-8895A, U-8897A, U-40401, U-64058

### Merger Recognized

Acceptable evidence has been filed in this office concerning the merger of UMC Petroleum Corporation into Ocean Energy, Inc. with Ocean Energy, Inc. being the surviving entity.

For our purposes, the merger is recognized effective May 15, 1998, the effective date set by the New Mexico State Office.

The oil and gas lease files identified above have been noted as to the merger. The list was compiled from your list of leases, and a list of leases obtained from our Automated Land and Mineral Record System (ALMRS). We have not abstracted the lease files to determine if the entity affected by the merger holds an interest in the leases identified nor have we attempted to identify leases where the entity is the operator on the ground maintaining no vested record title or operating rights interests. We are notifying the Minerals Management Service and all applicable Bureau of Land Management offices of the change by a copy of this notice. If additional documentation for changes of operator are required by our Field Offices, you will be contacted by them.

By recognition of the merger, the principal is automatically changed by operation of law from UMC Petroleum Corporation to Ocean Energy, Inc. on Bond No. BO1843 (BLM Bond No. NM1773). A rider amending the principal's name from UMC Petroleum Corporation to Ocean Energy, Inc. has been filed in the New Mexico State Office, examined, and found to be satisfactory.

**ROBERT LOPEZ**

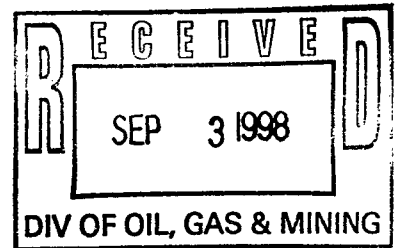
Robert Lopez  
Group Leader,  
Minerals Adjudication Group

cc: Moab District Office  
Vernal Field Office  
MMS-Reference Data Branch, MS 3130, P.O. Box 5860, Denver, CO 80217  
State of Utah, DOGM, Attn: Lisha Cordova (Ste. 1210) P.O. Box 145801, SLC, UT 84114



September 2, 1998

Lisha Cordova  
Utah Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801



RE: Merger of UMC Petroleum Corporation and Ocean Energy, Inc.  
Pearl Broadhurst #2, #4, #5 & #14.

Dear Ms. Cordova:

Effective April 1, 1998, UMC Petroleum Corporation merged with Ocean Energy, Inc. Effective June 30, 1998, all onshore wells were transferred to its wholly owned subsidiary, Ocean Energy Resources, Inc. Enclosed is the requested UIC Form 5's for the subject change of operation for the original merger and the subsequent re-organization in June 30 1998. All wells previously operated by UMC Petroleum in Utah are now operated by Ocean Energy Resources, Inc.

There has been no change in personnel with whom you are already familiar. Furthermore, the address for all notices, revenues and remittances, notifications and general correspondence remains the same:

Ocean Energy, Resources, Inc.  
410 17<sup>th</sup> Street, Suite 1400  
Denver, Colorado 80202

Please distribute this notice to any other applicable departments within your organization that should be aware of this change.

If you have any questions, please feel free to contact the undersigned at (303) 573-4721.

Sincerely,

A handwritten signature in dark ink, appearing to read "Scott M. Webb".

Scott M. Webb  
Regulatory Coordinator

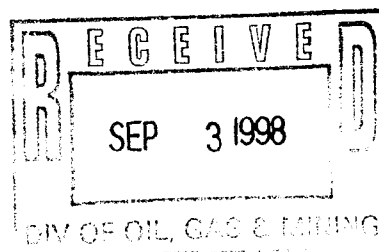


UNITED STATES OF AMERICA  
State of Louisiana

Box McKeithen

SECRETARY OF STATE

*As Secretary of State, of the State of Louisiana, I do hereby Certify that*  
the annexed and following is a True and Correct copy of a  
Merger as shown by comparison with document filed and  
recorded in this Office on March 27, 1998.



*In testimony whereof, I have hereunto set  
my hand and caused the Seal of my Office  
to be affixed at the City of Baton Rouge on,*

April 17 1998

*Box McKeithen*

CGR

*Secretary of State*



## **CERTIFICATE OF MERGER**

**of  
UMC Petroleum Corporation, a Delaware corporation  
into  
Ocean Energy, Inc., a Louisiana corporation**

Pursuant to Section 112 of the Louisiana Business Corporation Law (the "LBCL"), Ocean Energy, Inc., a Louisiana corporation ("OEI"), hereby adopts the following Certificate of Merger regarding the merger (the "Merger") of UMC Petroleum Corporation, a Delaware corporation ("UMCPC" and, together with OEI, the "Constituent Corporations"), with and into OEI, with OEI as the surviving corporation (the "Surviving Corporation").

1. Ocean Energy, Inc., a Louisiana corporation, and UMC Petroleum Corporation, a Delaware corporation, are the parties to the Merger.

2. The Agreement and Plan of Merger, dated March 27, 1998 (the "Merger Agreement"), has been approved, adopted, certified, executed and acknowledged by the Constituent Corporations in accordance with Section 112 of the LBCL.

3. The Merger is effective at 3:02 p.m., Central Standard Time, on March 27, 1998.

4. The name of the Surviving Corporation shall be Ocean Energy, Inc.

5. Article III of the Articles of Incorporation of Ocean Energy, Inc. is amended in connection with the Merger to increase the authorized capital of the Surviving Corporation and, as a result of the amendment, Article III shall be and read as follows: *The aggregate number of shares which the corporation shall have authority to issue is 3,000 shares without par value, all of which shares shall be of one class and shall be designated as Common Stock*. The Articles of Incorporation of the Surviving Corporation as amended by the amendment to Article III shall be its articles of incorporation.

6. The executed Merger Agreement is on file at the principal place of business of the Surviving Corporation, 1201 Louisiana, Suite 1400, Houston, Texas 77002.

7. A copy of the Merger Agreement will be furnished by the Surviving Corporation, on request and without cost, to any shareholder of UMC Petroleum Corporation or Ocean Energy, Inc., the parties to the Merger.

This Certificate of Merger is dated this 27th day of March, 1998.

OCEAN ENERGY, INC.

By: 

Name: Robert K. Reeves

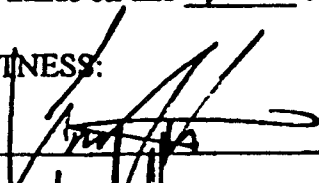
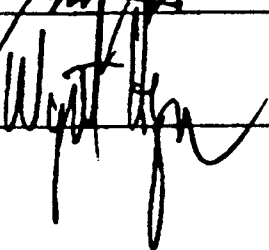
Title: Executive Vice President,  
General Counsel and Secretary

STATE OF TEXAS       §  
                                 §  
COUNTY OF HARRIS   §

BEFORE ME, the undersigned authority, personally came and appeared Robert K. Reeves, who being duly sworn, declared and acknowledged before me that he is the Executive Vice President, General Counsel and Secretary of Ocean Energy, Inc., a Louisiana corporation, and acknowledged to me that he was authorized to and executed the foregoing Certificate of Merger of UMC Petroleum Corporation into Ocean Energy, Inc. in such capacity for the purposes therein expressed, and as his, and said corporation's free act and deed.

IN WITNESS WHEREOF, the said appearer, witnesses and I, notary, have hereunto affixed our hands on this 27<sup>th</sup> day of March, 1998 at Houston, Texas.

WITNESS:

  
\_\_\_\_\_  
  
\_\_\_\_\_

  
\_\_\_\_\_  
Robert K. Reeves



\_\_\_\_\_  
Notary Public in and for  
the State of Texas

  
\_\_\_\_\_


*State of Delaware*  
*Office of the Secretary of State* PAGE 1

---

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"UMC PETROLEUM CORPORATION", A DELAWARE CORPORATION,  
WITH AND INTO "OCEAN ENERGY, INC." UNDER THE NAME OF "OCEAN ENERGY, INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF LOUISIANA, AS RECEIVED AND FILED IN THIS OFFICE THE TWENTY-SEVENTH DAY OF MARCH, A.D. 1998, AT 12:22 O'CLOCK P.M.



  
\_\_\_\_\_  
Edward J. Freel, Secretary of State

2257442 8100M

981130659

AUTHENTICATION: 9012828

DATE: 04-06-98

## CERTIFICATE OF MERGER

Merger of UMC Petroleum Corporation, a Delaware corporation  
With and Into  
Ocean Energy, Inc., a Louisiana corporation

Pursuant to the Provisions of Section 252 of the Delaware General Corporation Law, the undersigned certifies as follows concerning the merger (the "Merger") of UMC Petroleum Corporation, a Delaware corporation, with and into Ocean Energy, Inc., a Louisiana corporation (together with UMC Petroleum Corporation, the "Constituent Corporations"), with Ocean Energy, Inc. as the surviving corporation (the "Surviving Corporation").

1. The Agreement and Plan of Merger, dated March 27, 1998 (the "Merger Agreement"), has been approved, adopted, certified, executed and acknowledged by the Constituent Corporations in accordance with Section 252 of the Delaware General Corporation Law.

2. The Merger contemplated in the Merger Agreement and this Certificate of Merger will be effective at 3:02 p.m., Central Standard Time, on March 27, 1998.

3. The name of the Surviving Corporation shall be Ocean Energy, Inc.

4. Article III of the Articles of Incorporation of Ocean Energy, Inc. is amended in connection with the Merger to increase the authorized capital of the Surviving Corporation and, as a result of the amendment, Article III shall be and read as follows: *The aggregate number of shares which the corporation shall have authority to issue is 3,000 shares without par value, all of which shares shall be of one class and shall be designated as Common Stock.* The Articles of Incorporation of the Surviving Corporation as amended by the amendment to Article III shall be its articles of incorporation.

5. The executed Merger Agreement is on file at the principal place of business of the Surviving Corporation, 1201 Louisiana, Suite 1400, Houston, Texas 77002.

6. A copy of the Merger Agreement will be furnished by the Surviving Corporation, on request and without cost, to any stockholder of UMC Petroleum Corporation or Ocean Energy, Inc.

7. The Surviving Corporation may be served with process in the State of Delaware in any proceeding for enforcement of any obligation of the Constituent Corporations, as well as for enforcement of any obligation of the Surviving Corporation arising from the Merger, including any suit or other proceeding to enforce the right of any stockholder as determined in appraisal proceedings pursuant to the provisions of Section 262 of the Delaware General Corporation Law, and the Surviving Corporation does hereby irrevocably appoint the Secretary of State of

Delaware as its agent to accept service of process in any such suit or other proceedings. The address to which a copy of such process shall be mailed by the Secretary of State of Delaware is c/o Ocean Energy, Inc., 1201 Louisiana, Suite 1400, Houston, Texas 77002, Attention: Secretary, until the Surviving Corporation shall have hereafter designated in writing to the Secretary of State of Delaware a different address for such purpose.

Dated this 27th day of March, 1998.

OCEAN ENERGY, INC.

By: 

Name: Robert K. Reeves

Title: Executive Vice President,  
General Counsel and Secretary

## OPERATOR CHANGE WORKSHEET

Attach all documentation received by the division regarding this change.

Initial each listed item when completed. Write N/A if item is not applicable.

Routing	
1-JLT	6-LEG KRJ
2-GLH	7-KAS
3-DTS	8-SI
4-VLD CDW	9-FILE
5-JRB	

☒ Change of Operator (well sold)☐ Designation of Agent☐ Designation of Operator☒ Operator Name Change OnlyThe operator of the well(s) listed below has changed, effective: 4-1-98 (MERGER)

TO: (new operator) OCEAN ENERGY INC  
 (address) PO BOX 549  
NEWCASTLE WY 82701-0549

FROM: (old operator)  
 (address)

UMC PETROLEUM CORPORATION  
PO BOX 549  
NEWCASTLE WY 82701-0549

Phone: (307) 746-4052  
 Account no. N3220 (7-31-98)

Phone: (307) 746-4052  
 Account no. N9215

WELL(S) attach additional page if needed:

Name: <b>**SEE ATTACHED**</b>	API: <u>43-047-30939</u>	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____

## OPERATOR CHANGE DOCUMENTATION

- lec 1. (r649-8-10) Sundry or other legal documentation has been received from the **FORMER** operator (attach to this form). (Rec'd 9-3-98)
- lec 2. (r649-8-10) Sundry or other legal documentation has been received from the **NEW** operator (Attach to this form). (Rec'd 9-3-98)
- lec 3. The **Department of Commerce** has been contacted if the new operator above is not currently operating any wells in Utah. Is the company **registered with the state?** (yes/no) \_\_\_\_ If yes, show company file number: Co 209299 (c.f. 3-23-98)
- lec 4. **FOR INDIAN AND FEDERAL WELLS ONLY.** The BLM has been contacted regarding this change. Make note of BLM status in comments section of this form. BLM approval of **Federal** and **Indian** well operator changes should ordinarily take place prior to the division's approval, and before the completion of **steps 5 through 9** below.
- lec 5. Changes have been entered in the **Oil and Gas Information System** (3270) for each well listed above. (7-31-98) \* UIC Quattro E. DBASE
- chl 6. **Cardex** file has been updated for each well listed above. (8-3-98)
- chl 7. Well **file labels** have been updated for each well listed above. (8-3-98)
- lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" **memo** for distribution to Trust Lands, Sovereign Lands, UGS, Tax Commission, etc. (7-31-98)
- lec 9. A folder has been set up for the **Operator Change** file, and a copy of this page has been placed there for reference during routing and processing of the original documents.



### ENTITY REVIEW

- Lee 1. (r649-8-7) **Entity assignments have been reviewed** for all wells listed above. Were entity changes made? (yes/no) no If entity assignments were changed, attach copies of Form 6, Entity Action Form.
- N/A Lee 2. Trust Lands, Sovereign Lands, Tax Commission, etc., have been **notified** through normal procedures of entity changes.

### BOND VERIFICATION - (FEE WELLS ONLY)

- N/A Lee 1. (r649-3-1) The **NEW** operator of any fee lease well listed above has furnished a proper bond.
2. A **copy of this form** has been placed in the new and former operator's bond files.
3. The **FORMER** operator has requested a release of liability from their bond (yes/no)    , as of today's date    . If yes, division response was made to this request by letter dated    .

### LEASE INTEREST OWNER NOTIFICATION OF RESPONSIBILITY

- N/A Lee 1. Copies of documents have been sent on     to     at Trust Lands for changes involving State leases, in order to remind that agency of their responsibility to review for proper bonding.
- N/A Lee 2. (r649-2-10) The former operator of any fee lease wells listed above has been contacted and informed by letter dated     19    , of their responsibility to notify all interest owners of this change.

### FILMING

- ✓ 1. All attachments to this form have been **microfilmed**. Today's date: 12.8.98.

### FILING

1. **Copies** of all attachments to this form have been filed in each **well file**.
2. The **original of this form**, and the **original attachments** are now being filed in the Operator Change file.

### COMMENTS

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**STATE OF UTAH**  
**DIVISION OF OIL, GAS AND MINING**  
 1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801

Page 2 of 2

## MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

LORETTA A MURPHY  
 OCEAN ENERGY INC  
 PO BOX 549  
 NEWCASTLE WY 82701-0549

UTAH ACCOUNT NUMBER: N3220REPORT PERIOD (MONTH/YEAR): 12 / 98AMENDED REPORT ☐ (Highlight Changes)

Well Name			Producing Zone	Well Status	Days Oper	Production Volumes		
API Number	Entity	Location				OIL(BBL)	GAS(MCF)	WATER(BBL)
BROADHURST 18			GRRV			U-02651-A		
4304730939	00225	07S 23E 9						
PEARL BROADHURST 19			GRRV			U-02651-A		
4304730940	00225	07S 23E 9						
BROADHURST 20			GRRV			U-02651-A		
4304730941	00225	07S 23E 9						
BROADHURST 21			GRRV			U-02651-A		
4304730942	00225	07S 23E 9						
PEARL BROADHURST 22			GRRV			U-02651-A		
4304731025	00225	07S 23E 10						
<b>TOTALS</b>								

REMARKS:

I hereby certify that this report is true and complete to the best of my knowledge.

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)		5. LEASE DESIGNATION & SERIAL NO. U-025651-A	
1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Ocean Energy Resources, Inc.		7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR 410 17th Street, Suite 1400, Denver, Colorado 80202		8. FARM OR LEASE NAME USA Pearl Broadhurst	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 581' FNL & 2042' FEL NW NE At proposed prod. zone		9. WELL NO. 18	
10. FIELD AND POOL, OR WILDCAT Walker Hollow Field		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 9 -7S-R23E	
14. API NO. 43,047,30939	15. ELEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY Uintah	13. STATE UT

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other)

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

ABANDON ☐

CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☐

SHOOTING OR ACIDIZING ☐

(Other) Change Of Operator ☒

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT\* ☐

DATE OF COMPLETION \_\_\_\_\_

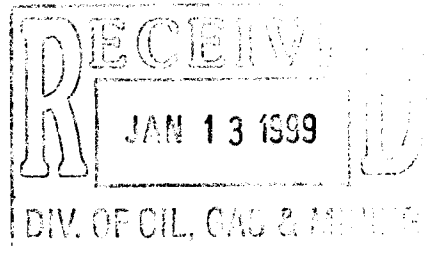
APPROX. DATE WORK WILL START \_\_\_\_\_

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Change of Operator: Effective Date January 1, 1999.\* Must be accompanied by a cement verification report.

Former Operator: Ocean Energy, Resources, Inc. (303) 573-5100  
 410 17th Street, Suite 1400  
 Denver, Colorado 80202

New Operator: Citation Oil & Gas Corp. (281) 469-9664  
 8223 Willow Place South  
 Suite 250  
 Houston, Texas 77070-5623



18. I hereby certify that the foregoing is true and correct.

SIGNED \_\_\_\_\_

TITLE Regulatory Coordinor

DATE 1/6/99

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)		5. LEASE DESIGNATION & SERIAL NO. U-025651-A	
1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Citation Oil & Gas Corp.		7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR 8223 Willow Place South, Suite 250, Houston, TX 77070-5623		8. FARM OR LEASE NAME USA Pearl Broadhurst	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 581' FNL & 2042' FEL NW NE At proposed prod. zone		9. WELL NO. 18	
10. FIELD AND POOL, OR WILDCAT Walker Hollow Field		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 9-T7S-R23E	
14. API NO. 43-047-30939	15. ELEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY Uintah	13. STATE UT

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) Change Of Operator <input checked="" type="checkbox"/>	
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

APPROX. DATE WORK WILL START \_\_\_\_\_

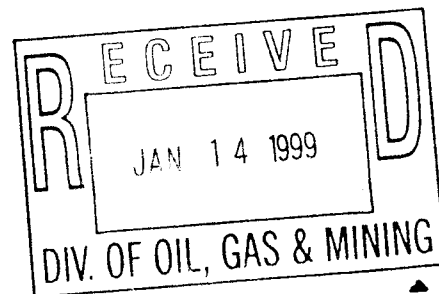
DATE OF COMPLETION \_\_\_\_\_

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Change of Operator: Effective Date January 1, 1999.\* Must be accompanied by a cement verification report.

Former Operator: Ocean Energy, Resources, Inc. (303) 573-5100  
 410 17th Street, Suite 1400  
 Denver, Colorado 80202

New Operator: Citation Oil & Gas Corp. (281) 469-9664  
 8223 Willow Place South  
 Suite 250  
 Houston, Texas 77070-5623



18. I hereby certify that the foregoing is true and correct

SIGNED

*Robert L. Land*

TITLE

*Vice President Land*

DATE

*1-8-99*

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:



## United States Department of the Interior

### BUREAU OF LAND MANAGEMENT Vernal Field Office

170 South 500 East Phone: (435) 781-4400  
Vernal, Utah 84078-2799 Fax: (435) 781-4410

IN REPLY REFER TO:

3160  
UT08300

February 17, 1999

Citation Oil & Gas Corporation  
Attn: Sharon Ward  
P O Box 690688  
Houston, TX 77269-0688

Re: USA Pearl Broadhust Wells 1, 2, 4, 5, 6, 7,  
8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19,  
20, 21, and 22  
Sec. 9 & 10, T7S, R23E  
Lease U-02651-A  
Uintah County, Utah

Dear Ms. Ward:

This correspondence is in regard to the self-certification statement submitted requesting a change in operator for the referenced well. After a review by this office, the change in operator request is approved. Effective immediately, Citation Oil & Gas Corporation is responsible for all operations performed on the referenced well. All liability will now fall under your bond, BLM Bond No. MT0630, for all operations conducted on the referenced well on the leased land.

If you have any other questions concerning this matter, please contact Margie Herrmann or Pat Sutton of this office at (435) 781-4492.

Sincerely,

Howard B. Cleavinger II  
Assistant Field Manager for

## Minerals Resources

cc: Ocean Energy, Inc.  
Amoco Production Co.  
Utah Div. Oil, Gas & Mining

**From:** <Margie\_Herrmann@ut.blm.gov>  
**To:** <nrogrm.krisbeck@state.ut.us>  
**Date:** Tue, Jun 1, 1999 11:18 AM  
**Subject:** Change of Operator

Here goes again! Let me know if you receive it.  
Thank you,  
Margie

# OPERATOR CHANGE WORKSHEET

Attach all documentation received by the division regarding this change.

Initial each listed item when completed. Write N/A if item is not applicable.

Routing:

1-KDR ✓	6-KAS ✓
2-GLH ✓	7-SJ
3-JRB ✓	8-FILE
4-CDW ✓	
5-KDR ✓	T

☒ Change of Operator (well sold)

☐ Designation of Agent

☐ Designation of Operator

☐ Operator Name Change Only

The operator of the well(s) listed below has changed, effective: 1-1-99

<b>TO:</b> (new operator)	<u>CITATION OIL &amp; GAS CORP</u>	<b>FROM:</b> (old operator)	<u>OCEAN ENERGY RESOURCES INC</u>
(address)	<u>8223 WILLOW PL. SOUTH STE 250</u>	(address)	<u>410 17TH STREET STE 1400</u>
	<u>HOUSTON, TX 77070-5623</u>		<u>DENVER, CO 80202</u>
Phone:	<u>(281) 469-9664</u>	Phone:	<u>(303) 573-5100</u>
Account no.	<u>N0265</u>	Account no.	<u>N3220</u>

**WELL(S)** attach additional page if needed:

Name: <u>*SEE ATTACHED*</u>	API: <u>43-047-30989</u>	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____

## OPERATOR CHANGE DOCUMENTATION

- KDR 1. (r649-8-10) Sundry or other legal documentation has been received from the **FORMER** operator (attach to this form). *(Rec'd 1.13.99)*
- KDR 2. (r649-8-10) Sundry or other legal documentation has been received from the **NEW** operator (Attach to this form). *(Rec'd 1.14.99)*
- N/A 3. The **Department of Commerce** has been contacted if the new operator above is not currently operating any wells in Utah. Is the company **registered with the state?** (yes/no) \_\_\_\_ If yes, show company file number: \_\_\_\_\_
- KDR 4. **FOR INDIAN AND FEDERAL WELLS ONLY.** The BLM has been contacted regarding this change. Make note of BLM status in comments section of this form. BLM approval of **Federal** and **Indian** well operator changes should ordinarily take place prior to the division's approval, and before the completion of **steps 5 through 9** below. *(Rec'd 6.1.99)*
- KDR 5. Changes have been entered in the **Oil and Gas Information System** (3270) for each well listed above. *(6.10.99)*
- KDR 6. **Cardex** file has been updated for each well listed above.
- KDR 7. Well **file labels** have been updated for each well listed above. *(\*new filing system)*
- KDR 8. Changes have been included on the monthly "Operator, Address, and Account Changes" **memo** for distribution to Trust Lands, Sovereign Lands, UGS, Tax Commission, etc. *6.10.99*
- KDR 9. A folder has been set up for the **Operator Change file**, and a copy of this page has been placed there for reference during routing and processing of the original documents.



## ENTITY REVIEW

- UDR 1. (r649-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) (no) \_\_\_\_ If entity assignments were changed, attach copies of Form 6, Entity Action Form.
- UDR 2. Trust Lands, Sovereign Lands, Tax Commission, etc., have been **notified** through normal procedures of entity changes.

## BOND VERIFICATION - (FEE WELLS ONLY)

- N/A 1. (r649-3-1) The **NEW** operator of any fee lease well listed above has furnished a proper bond.
- + 2. A **copy of this form** has been placed in the new and former operator's bond files.
- + 3. The **FORMER** operator has requested a release of liability from their bond (yes/no) \_\_\_\_, as of today's date \_\_\_\_. If yes, division response was made to this request by letter dated \_\_\_\_.

## LEASE INTEREST OWNER NOTIFICATION OF RESPONSIBILITY

- N/A 1. Copies of documents have been sent on \_\_\_\_ to \_\_\_\_ at Trust Lands for changes involving State leases, in order to remind that agency of their responsibility to review for proper bonding.
- + 2. (r649-2-10) The former operator of any fee lease wells listed above has been contacted and informed by letter dated \_\_\_\_ 19 \_\_\_\_, of their responsibility to notify all interest owners of this change.

## FILMING

- VS 1. All attachments to this form have been **microfilmed**. Today's date: 8.3.99.

## FILING

- + 1. **Copies** of all attachments to this form have been filed in each **well file**.
- + 2. The **original of this form**, and the **original attachments** are now being filed in the Operator Change file.

## COMMENTS

990514 left message w/ Marjil (Blm) regarding approval? 990601 Rec'd e-mail approval from Marjil (Blm)

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number:

**U-02651-A**

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number:

**USA Pearl Broadhurst #10**

9. API Well Number:

**43-047-30839**

10. Field and Pool, or Wildcat:

**Walker Hollow**

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to re-enter plugged and abandoned wells.  
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well:

OIL



GAS



OTHER:

2. Name of Operator

**Citation Oil & Gas Corp.**

3. Address and Telephone Number:

**8223 Willow Place South, Suite 250, Houston, Texas 77070-5623 (281) 469-9664**

4. Location of Well

Footages:

**2029 FSL & 1819 FEL**

QQ, Sec., T., R., M.:

**NW SE Sec. 9-7S-23E**

County:

**Uintah**

State:

**UT**

11.

### CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

#### NOTICE OF INTENT

(Submit in Duplicate)

☐ Abandonment☐ New Construction☐ Casing Repair☐ Pull or Alter Casing☐ Change of Plans☐ Recompletion☐ Conversion to Injection☐ Shoot or Acidize☐ Fracture Treat☐ Vent or Flare☐ Multiple Completion☐ Water Shut-Off**Return well to production**

Other

Approximate date work will start **October 2000**

#### SUBSEQUENT REPORT

(Submit Original Form Only)

☐ Abandonment\*☐ New Construction☐ Casing Repair☐ Pull or Alter Casing☐ Change of Plans☐ Shoot or Acidize☐ Conversion to Injection☐ Vent or Flare☐ Fracture Treat☐ Water Shut-Off☐

Other

Date of work completion

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL  
COMPLETION OR RECOMPLETION AND LOG form

\* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

**Citation Oil & Gas Corp. proposes to return the above well to production with the attached procedure.**

# RECEIVED

## OCT 10 2000

### DIVISION OF OIL, GAS AND MINING

13.

Name &amp; Signature:


**Sharon Ward**

Title:

**Regulatory Administrator**

Date:

**10/4/00**

(This space for State use only)

### APPROVED

**The Utah Division of Oil, Gas and Mining**  
**Robert J. Krueger, PE, Petroleum Engineer**

COPY SENT TO OPERATOR  
Date: 10-11-00  
Initials: CHD

Date:

10-11-00

**PROPOSED WORKOVER PROCEDURE  
PEARL BROADHURST #10  
UINTAH COUNTY, UTAH  
(October 2, 2000)**

**OBJECTIVE:**

Add perforations, acidize, and return to production.

Perforated intervals:

Green River "H": 4670'-74', 4687'-92'.

Green River "J": 5272'-74', 5258'-60'.

Green River "K": 5368'-70', 5361'-63', 5348'-50', 5328'-30' (squeezed).

Proposed Perforations:

5252'-62', 5270'-81', 5326'-31', 5342'-48', 5360'-64', & 5366'-5370'.

**PROPOSED PROCEDURE**

1. MIRU workover rig and pump.
2. Bleed well down. ND tree, NU BOPE.
3. TOH w/ 2 <sup>7</sup>/<sub>8</sub>" tubing.
4. Pick up 5-<sup>1</sup>/<sub>2</sub>" bit and scraper and RIH to PBTD @ 5506'. TOH.
5. Rig up perforators & RIH with 4" casing gun. Perforate the following: 5366'-70', 5360'-64', 5342'-48', 5326'-31', 5270'-81', 5252'-62' all with 4 Jspf. TOH & rig down perforating equipment.
6. Hydrotest in hole with 5-<sup>1</sup>/<sub>2</sub>" RBP and 5-<sup>1</sup>/<sub>2</sub>" Backer Model "EA" Retrievable Packer. Set the RBP at 5390'. Pick up packer and set at 5225'. Swab test perms (5252'-5366') to evaluate fluid entry.
7. Rig up pump equipment and acidize perms (5252'-5366') with 4500 gallons 7-1/2% HCl with rock salt diverter and additives (Corrosion Inhibitor, MSR 100, & NEA). Displace with 35 bbls water. Swab back load volume and evaluate entry. (Zones may be swab tested individually with the bridge plug and packer as directed).
8. Release packer at 5225' and retrieve bridge plug at 5390' and TOH. Lay down bridge plug and packer.
9. Pick up BHA and 2-<sup>7</sup>/<sub>8</sub>" tubing and RIH. ND BOP. RIH w/ pump and rods. NU Tree. Hang on horses head. Fill tubing. Space out pump. Pressure test to 500 psi.
10. Return well to production.

**RECEIVED**

OCT 10 2000

DIVISION OF  
OIL, GAS AND MINING

**CITATION OIL & GAS CORP.**  
**WALKER HOLLOW PEARL BROADHURST #10**  
**(NW/SE) Sec. 9-T7S-R23E**  
**UINTAH CO., UTAH**

API:

KB: 13 FT  
 GL: 5118 FT  
 Status: Shut in

12 1/4"  
Hole

8-5/8" 24# K-55 @ 470'  
Cmt w/ 360 sx.

2 7/8" Tbg

TOC @ 770' CBL

3/19/82 Green River "H"  
 4670'-74' (2 Jspf)  
 4687'-92' (2 Jspf)  
 Acidize w/ 750 gal 7.5%  
 MRA & ball sealers

3/23/82 Frac "H":  
 30,000 gal Super-E  
 17,000 # 20-40 sand  
 27,000 # 10-20 sand

3/81 Green River "J"    3/81 Stimulation:  
 5272'-74' (1 Jspf)    Broke "J" perms w/ 500 gal 7.5%  
 5258'-60' (1 Jspf)    HCL w/ ball sealers. Re-acidize  
                                  w/ 500 gal 7.5% HCL.

3/81 Frac "J":  
 9,000 gal Super-E pad  
 18,000 gal Super-E fluid  
 28,000 # 20-40 sand  
 15,000 # 10-20 sand

3/81 Green River "K"  
 5328'-30' (1 Jspf) Sqz'd  
 5348'-50' (1 Jspf) Sqz'd  
 5361'-63' (1 Jspf) Sqz'd  
 5368'-70' (1 Jspf) Sqz'd

3/81: 5 1/2" 14# K-55 @ 5542' w/ 875 sx

PBTD 5506'

TD: 5550'

7-7/8"  
Hole

TUBING DETAIL			
Qty	Description	Length	Depth
	K.B.	13	13
1	2 7/8", 6.5#, J-55, tbg sub	10	23
142	2 7/8", J-55, 6.5# ctd tbg	4577.73	4600.73
1	5.5"X2.5" TAC	2.8	4603.53
19	2 7/8", J-55, 6.5# ctd tbg	617.93	5221.46
1	SN	1.6	5223.06
1	2 7/8", J-55, 6.5# ctd tbg	32.43	5255.49
1	notched collar	0.6	5256.09

CASING DETAIL			
Size	Weight	Grade	Depth
8-5/8"	24	K-55	0-470
5-1/2"	14	K-55	0-5542

RECEIVED

OCT 10 2008

DIVISION OF  
OIL, GAS AND MINING

All depths KB unless noted.  
 Updated: 9-19-00 MW

**GREEN RIVER**